Gleanings in Bee Culture

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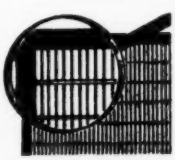

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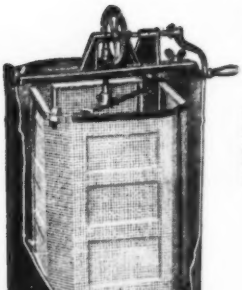

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Bee Lines to The Editor

"I enjoyed greatly the picture on your cover page for the July issue. One can well imagine the predicament that the young man is in.

"However, how does he happen to have a driver while getting ready to putt?

"Possibly his bewilderment is the explanation.

"It is a real human interest picture, anyway, and one any beekeeper would appreciate?" — F.W.S.

* * * * *

"I have read Propolis Pete's story about drones in January. Some of my colonies that were fed very heavily had drones flying in December. Two years ago I fed a few hives a dark honey as long as they would take it, just to get foundation drawn out. I got some very nice combs drawn out up to Nov. 15 and they kept the drones. The drones stayed all winter and the two-story hives were far too heavy to lift. They wintered perfectly." — D.O.H.

(Continued on page 508)

Monthly Honey Report

July 21, 1952

The following figures represent an expression of current prices from beekeepers and honey packers over the country. They are based on several reports from each state averaged with the reports in the region. Where insufficient information is returned, prices have been omitted from the chart. Where three figures appear on the chart the first figure represents the low, the middle figure represents the average, and the third figure the high price in cents per pound. Where only two figures are used the low and high are shown.

	North Atlantic	South	North Central	Mid-west	Pacific
Bulk Honey:					
Table Grade		10½-13-16c	12-12½-13	11½-12¼-12½	11 1/2-12-13c
Industrial Grade		8½ -12	9½-10-11	9¾-10-10¼	8¾-9½-10
Price to Grocers:					
5 lb. jar - can	20c-22c	18-20-24	16-19-22	16-17-18	18-20
3 lb. jar - 12's		19-22-25			
2 lb. jar - 12's		20-22-25		19½-23-25	
1 lb. jar - 24's		22-27-30	22-25½-29	21-24-25	
Comb Honey:					
Cs. of 24 Sec.		$6-7.15-8	$7.20-9.60	$7-8	
Retail Price:					
60 lb. can	15 30	18-20½-24	15-16-17	15-15¼-16½	14-16-20
5 lb. jar	20-28-45	22-26-30	21-25½-29	18-21-25	20-23-25
3 lb. jar	25-36-45	20-29-33			
2 lb. jar	30 -47	25-30-35		23-27-30	25-28-30
1 lb. jar	35-37-50	30-34-40	28-33-35	25-30½-33	29-31-34
Honey Sales:	90	82	74	82	91
Estimated Crop:					
Conditions based on normal %	Fair	Fair	Slow to Fair	Slow to Fair	Fair
Beeswax		40-50	40-43-47	40-43-52	40-42

Bulk honey tends to a slightly stronger price. (See page 329 June Gleanings for details of the Price Support). Bottled honey at retail remains about the same. A few comments are as follows:

Central Michigan - "Too dry. Season over unless rains come soon."

Ohio - "Reports are that Ohio's crop prospects are very poor."

Wisconsin - "No change in price. Honey flow still looks good."

Wisconsin - "Market unsettled. Beekeepers undecided what to do."

Arizona - "Sales good. Extra fancy honey selling readily at very good price. Quality not price sells the honey."

The general commodity price as reported in the Journal of Commerce for some 30 commodities stands at 290 as compared with 291.7 a month ago. 1938 is figured at 100.

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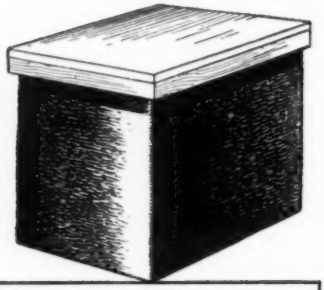

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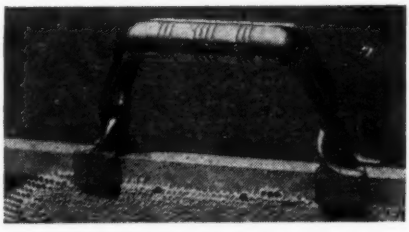

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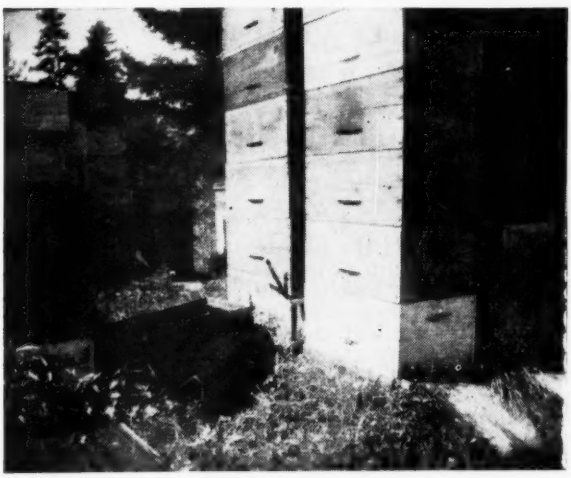
Created to help beekeepers succeed

The Supers Need a Lifter

By Philip Bishop, Sackville, New Brunswick, Canada



Arrow points to holding bar placed in position.

Sky-scraper hives are man killers. It is amazing that this mechanical age has not produced a popular super lifter to take this crippling burden off the beekeeper's shoulders.

For years I have been using a super lifter which I consider indispensable in my work as a honey producer. I developed this gadget during the early years of World War II when I was forced to find ways and means of operating our bees almost single-handed. It was designed for one-man operation. Whatever its limitations, it is compact and light enough to carry in the back of a car, and fast enough so that the hurried operator can move it from hive to hive in a matter of seconds. The bees like it and remain quieter than when a perspiring beekeeper is tearing things apart.

As the pictures show, the lifter is supported by the bottom brood chamber and lifts all the supers above the upper brood chamber. This allows the upper brood chamber to be moved to one side as usual when examining the brood nest.

The three parts of the lifter are shown in the diagram:

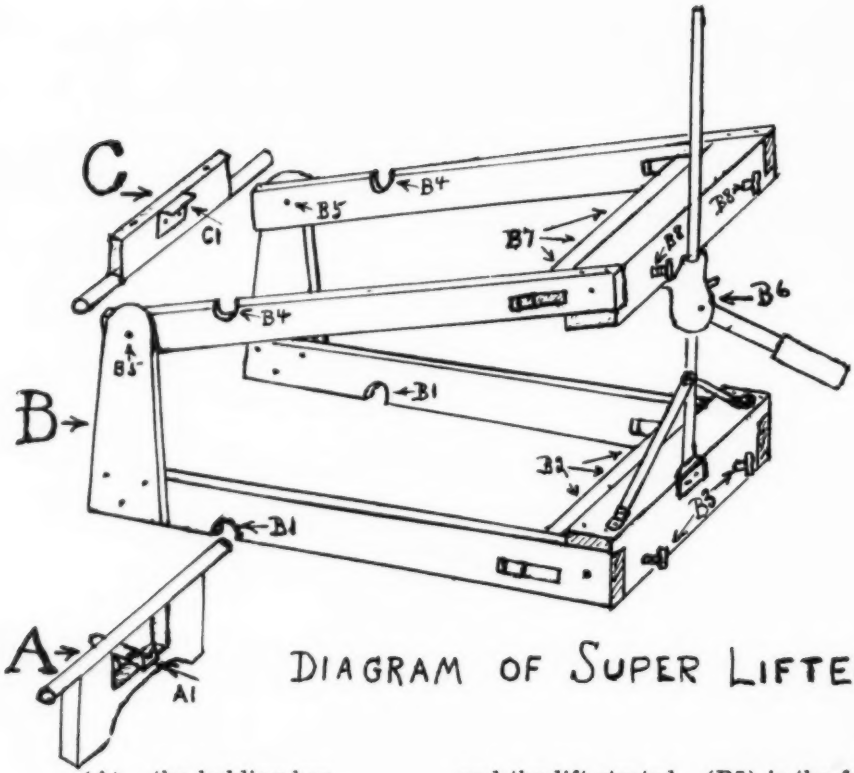


DIAGRAM OF SUPER LIFTER

(A) - the holding-bar
(B) - the lifter
(C) - the lifting-bar

(A) the **holding-bar,** consists of a base which holds a horizontal bar at the proper height at the back or front of the bottom brood chamber. This bar extends a couple of inches beyond each side of the brood chamber so that the lifter can hook over it. As shown in picture No. 1, we place the holding-bar on the hive stand at the back of the hive. If used in front it may be supported on the two-inch projection of the bottom board. A spring catch (A1) attached to the holding-bar grips the upper edge of the end handhold. This catch prevents the holding-bar from tumbling backward before the lifter is attached.

(B) the **lifter,** combines lower and upper clamps. The lower clamp forms the base which wedges in place on the bottom brood chamber after notches (B1) are hooked over the holding-bar. The upper clamp forms a lifting lever which grips the first super above the upper brood chamber after the lifting-bar (C) has been placed in notches (B4) and the lift started. (B5) is the fulcrum of the lever. (B2) in the lower clamp and (B7) in the upper clamp are contact edges that wedge against the ends of the hive bodies opposite to the holding-bar and lifting bar respectively. They are adjustable through set screws (B3) and (B8) to compensate for any appreciable variation in length of hive bodies. If hive bodies are accurately made, no change in this adjustment will be needed. (B6) represents an ordinary friction type car jack which I have found ideal for actuating the lifter.

(C) the **lifting-bar,** is a sort of opposing equivalent to the holding-bar. It closes the open end of the upper lifting clamp when placed in the notches (B4). A very important feature of the lifting-bar is the angle iron bracket (C1) which is placed so that it projects into the adjacent handhold when everything is in position on the hive.

The procedure in actual operation is to slip the **holding-bar** (A) in place as indicated by the arrow in picture No. 1. The **lifter** (B) is then applied from the opposite end

Applying the lifter.

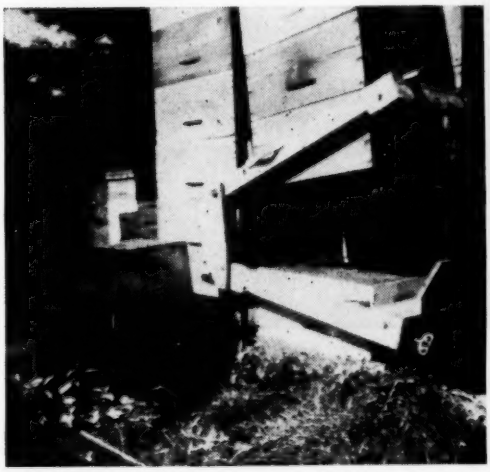
Arrow points to start of lift. Lifting bar is shown in position at X.

as shown in picture No. 2 and notches (B1) are hooked over the projecting ends of the holding-bar. Next, the **lifting-bar** (C) is placed in notches (B4) with the projection (C1) in the adjacent handhold, close to its upper edge. This completes the setting-up.

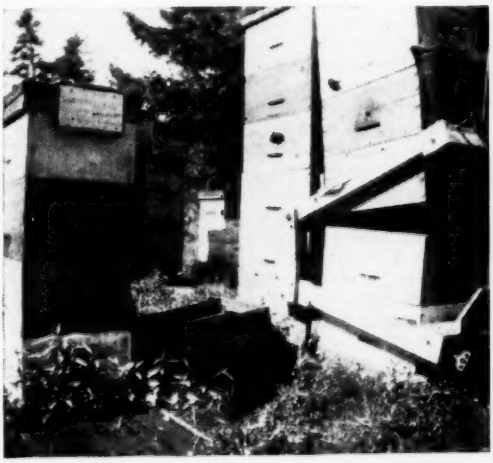
The next step is to operate the jack (B6). If all adjustments are correct, the projection (C1) of the lifting-bar will immediately start pushing up against the top of the handhold. As the lift continues, the pile of supers will start tipping because of the great up-thrust exerted in this handhold. By the time a crack of half an inch or so has opened (see picture No. 3) the contact edge (B7) will close against the end of the super opposite the lifting-bar and start the lift at this end also, reversing the direction of the tip started by the lifting-bar. The completed lift is shown in picture No. 4 and the upper brood chamber is free to be moved as in picture No. 5. The hive is closed by reversing this operation.

This may appear to be a precarious method of lifting and holding a heavy pile of supers. In the thousands of lifts I have made with it there has never been a spill or anything approaching such a danger. The center of gravity is held within safe limits and the greater the load, the tighter the hold.

As a bit of consolation for the hardy reader who has struggled with me to the end of this description, I offer the remark of a friend. I had explained my lifter to him and just finished a very proud demonstration in the apiary. After a noticeable silence, he said—"There ain't nobody knows how that d--- thing works!"



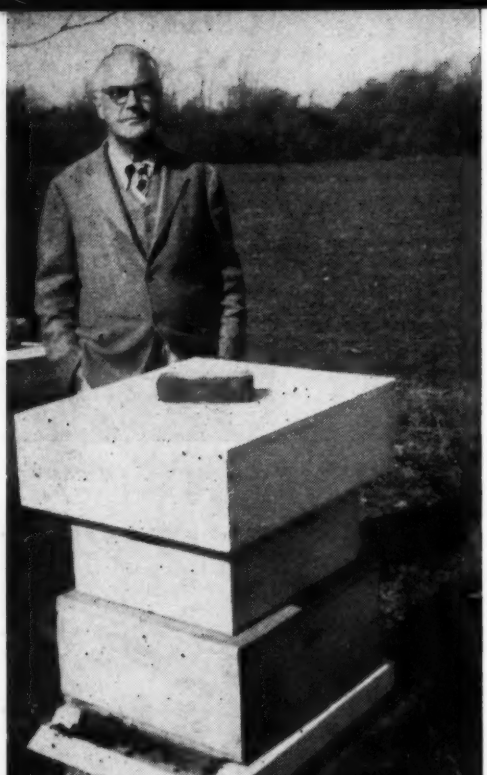
Lift completed.



Upper brood chamber removed.

One Hundred and Fifty Years with the Bees

By M. H. Stricker, Annandale, N. J.



"Tom" in his apiary.

Stop in or near the town of East Millstone, New Jersey, and ask, "Where does Mr. T. H. Mettler live?" and you'll probably get the response:

"Oh, you mean Tom Mettler, the bee man?" And, when you agree, you'll be directed to the brown house with its grove of mammoth trees—trees that have been catching swarms for over 150 years.

This swarming record was broken for some 40 years when Tom's bees had his individual attention, but then came a seige of illness and some of the Mettler charges left their happy homes for the treetop homes of their ancestors.

But, no more. Just visit the Mettler apiary and you'll almost always find the owner in his apiary. Ask for T. H. at the house and most of the time you'll get the answer, "He's around looking at the bees."

Even when the apiary work is all done and the weather is fine, you'll find Mettler in his bee yard, just watching and enjoying his bees.

He likes to recall how he got into the bee game over 50 years ago when his grandfather asked him to look out for swarms. Those were the days when the old beekeepers looked forward to swarms and s w a r m i n g. The swarms were caught, confined to gums, and the flow was so good that even a late swarm could produce many sections of honey in this area of Somerset County.

Life was simple then. There were not the complexities that beset us now and the Mettler bees produced well. Young Tom watched cautiously from the sidelines as grandfather worked the "German blacks" of that day. No especial interest overcame the boy until the older man became sick and while confined to bed, called for Tom.

"Tom, you know that strong stand on the end? That's going to swarm any day now and the doctor won't let me 'take' that swarm."

Tom readily agreed to "take" the swarm and every afternoon after school, the boy would check the trees to find the expected swarm. One afternoon it was there and in the excitement of finding the swarm, Tom was too busy to ask advice. He spread the sheet that was thought so indispensable in front of the newly-prepared gum and shook the swarm into it.

Mettler house yard.

Old "rocking chair" for relaxing

It wasn't until they ran in and started the "fanning" that signifies their adoption of a new home, that Tom realized that he hadn't been stung or hadn't ever thought about those predictions of being "stung to death", always so generously given out by the uninitiated to the interested layman.

With this beginning, Mettler's interest increased, and when the first patent hive was seen in Jersey, Mettler walked several miles to see and obtain one.

Movable-frame Hive Changes the Picture

"With this new hive, a whole new picture of beekeeping came to me", says Tom, when he thinks back to those ideas and experiences made possible with a movable-frame hive.

The first colonies installed in the new-fangled equipment, that was accepted by only the young and enthusiastic, brought some failures, but after mastering the new form of management necessary, Tom went on to produce what he calls a "good crop". The years referred to were 1922 and 1923 when his 50 colonies, all in Buckeye hives, produced over two tons of honey each year. Old-timers I have consulted assure me that for those years this was a record of achievement, not merely a "good crop" as the Mettler modesty puts it.

Mettler who strayed successfully into other businesses never lost interest in bees and kept them as a profitable sideline. But he claims he would have kept them had they cost money, because of the relaxation and enjoyment that he obtained after hours of business strain.

Then came the heart attack that confined him for months in bed. Occasionally he would hear a swarm but he made up his mind that he wouldn't worry about them, as his grandfather had. He would just remember that at the very worst, his equipment would still be there and he would have that to start again.

Recovered, Tom is back to beekeeping. He proudly (and rightly) showed me his breeding stock which he had spared no cost in getting. To make a successful and quick change from the old strain to new, he bought laying breeder queens with frames of their eggs and brood. After killing the old queen, he intended to smoke the colony well and introduce the new bees, brood, and queen. When the new queens arrived, someone asked to buy the old queens and enough brood to make "nucs". Tom agreed since it looked like good business, but now Tom admits that if he had known how poor the flow was going to be in New Jersey last autumn, he would have thought better of the transaction. But, if a beekeeper was to look back on past mistakes, and tarry too long, he'd quit beekeeping.

But now the die was cast. Mettler had seen a colony headed with this strain of bees perform the year previous, so he got out his sugar, and in the days when consumer contumacy had caused the product to retreat under the grocer's shelves, the household pantry was raided.

One colony had been fed 50 pounds of sugar, not 50 pounds of

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On the Dissemination of AFB Spores

By L. F. Childers, New Franklin, Mo.

[L. F. Childers, now a sideline beekeeper, has had considerable biological training, having spent five years as head of the Department of Soils and Farm Crops in Idaho, and 10 years as Associate Professor of Soils in the University of Missouri. For seven years he was associated with Dr. B. M. Duggar who discovered Auromicene, during which time he got the idea of feeding drugs for foulbrood colonies. Mr. Childers also worked with Dr. Leonard Haseman, of the University of Missouri, who wrote Circular 341 "Sulfathiazole Control of American Foulbrood" that appeared in September, 1949. —Ed.]

There are two stages in a spore's life. When one germinates it becomes the parent of many vegetative parts which in time break up into single cells each with a tough coating that will withstand a lot of chemical and physical abuse. For many years we have used every means at our command to kill or destroy it but all to no avail. My ten years of experience with sulfathiazole in the control of AFB convinces me that there is another means of disseminating this disease and that this mature spore which we have sought so long to kill is greatly over-estimated in the damage it does. We do not mean to deny that such spores can and do germinate to set up new infections. Rather it is the cumbersome method by which the scales have to be cut down and the spores exposed and then carried around, then later picked up and fed to the developing larvae, that places them at a disadvantage.

Since sulfa does not kill the mature spore but does enable the bees to clean out the brood nest and stop the spread of the disease is convincing evidence that it is these early vegetative parts from which the virulence of the disease springs. Such cells don't have to go through the process of dissolving a tough coat to germinate. They are already vegetating and once introduced into the food of its victim, will render immediate damage. I think the reason this idea has never been up for consideration stems from the fact that no method for such transfer has ever been presented. The use of sulfa has uncovered one fact that plainly shows the way.

The general belief is that the adult bee is not affected with foul brood; that the nurse bee just picked up spores from somewhere and peddled them around to the larvae, and if one was missed it was never again troubled or if it received a spore after a certain age it did no damage. Sulfa has most certainly demolished that idea. There will be skepticism and logical questions for this assertion, because the average investigator with only one or two infected colonies can never have enough infected adults among the other bees to form a clear opinion. But put yourselves into my shoes. When I settled into making the test with sulfa there were about 40 colonies in every stage of infection. Many with no more than one-half gallon of bees. Within a week's time I was astonished at their reaction. As the disease progresses in a colony there will come a time when the open cells will become sticky and filthy, the bees listless and dingy, and a general air of indifference. And if the queen is a good one she will have run all over the combs depositing many eggs with the apparent hope of out-running the disease. A week's feeding of sulfa will change all of that. You will note a clearer color, an area of dry comb, a new hum, and nectar coming in. Also the adult numbers will remain constant. Now if these two items are proof of anything it is that these adults were diseased and that as the disease progressed the adults were dying unseen afield as were the larvae in the cells. This accounts for the rapid depletion of a thoroughly infected colony, and to see it en masse is most convincing.

Just where or what parts of the bee is affected of course I don't know but since this bacterium feeds on sugars one would expect to find some of it at least in the honey sac. Then when such a sick bee goes afield and returns with a load of nectar and starts pumping it into a cell what is there to hinder some of these vegetative parts from breaking off and being pumped in too? Thus the honey would become infected and would account for the rapid spread when infection starts.

Experimenters have found that spores of this disease are hard to keep alive on the media ordinarily

(Continued on page 506)

Let's Talk Sales

By Charles W. Gouget, Glen Ellyn, Ill.

BUZIE BEEMAN SAYS:

For years the study of sales and how to make them has been one of the most overlooked topics of the honey industry. Articles on sales, and how to make them, are usually conspicuous by their absence, while the great bulk of printed matter continues to deal with how to produce more honey and more beekeepers. Obviously, any industry that emphasizes production at the expense of sales throws itself out of balance, and tends to maintain a "buyer's" market which will continue to force prices down to lower and lower levels due to the resulting evils of price cutting.

Price "slaughtering" is never good business, and seldom even respectable when it involves selling below the cost of production. Who among us for example, can produce a five pound can of honey with a neat label, send it several hundred miles, retail it at the grocers for 89 cents, and make a reasonable profit, or in fact any profit at all, under the most efficient methods of production? Probably the best the producer could get for the five pound can would be 65 cents which would have to absorb the cost of the can, the label, and the freight, and no producer can afford to sell his honey for ten cents a pound. The producer who sells below the cost of production is working hard to produce deficits in his own business, and in addition, he is jeopardizing the price structure of the entire industry.

Beekeepers Must Become Sales Conscious

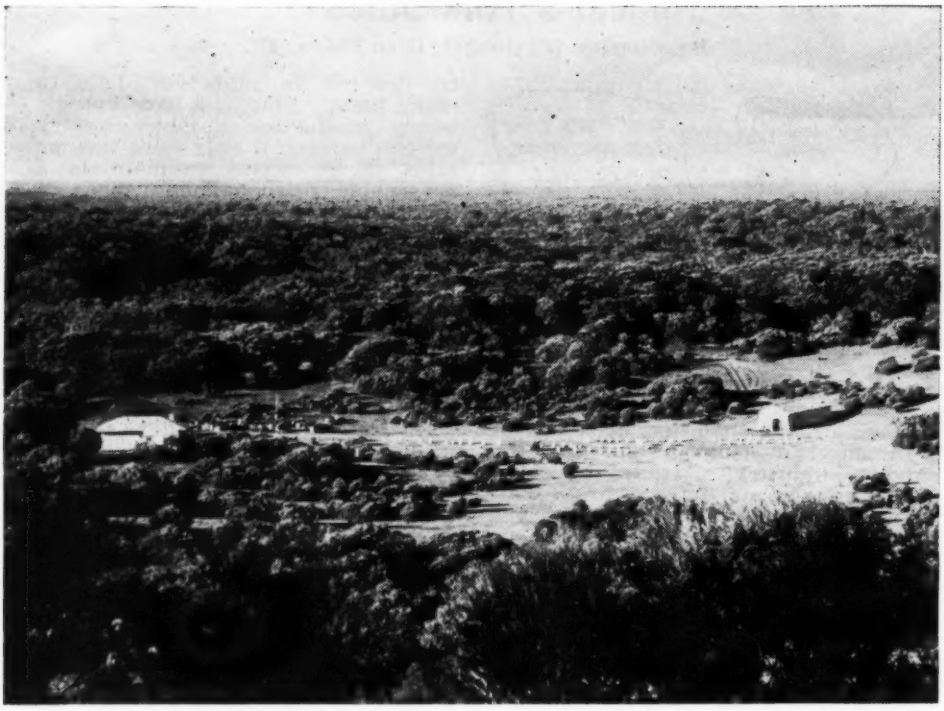
Beekeepers must become as sales conscious in the future as they have been production conscious in the past, and more time and space must be devoted to sales and how to make them. Since we have volume honey production in this country we can balance it only with volume sales, if we expect to maintain a reasonable price. This means, of course, that the "hodge-podge" methods of individual producers will not help the overall picture in the future any more than it has in the past, regardless of how well intended they may be. In place of the "spatter-print" methods of individuals there must be a highly integrated, national organization that will take the guess-work out of selling honey by collecting information on trade areas, channels of distribution, and all factors vital to successful marketing on a national scale. The seeds of such an organization have been "planted" in the untiring efforts of the National Federation which is the beekeepers' only hope in the future.

Sales are Life Blood

Sales are the "life blood" of any industry as without them there is no "circulation" of goods. Sales are made by those who like to sell because they know the unusual values and benefits of the product they have to sell, but above all, they know how to make the benefits known to other people. A good salesman will use all the "tools" of selling: sight, hearing, taste, and smell. Both he and his product will be pleasing to the eye, and his manners will be good. His voice will be pleasing too, and he will know when he has talked himself into a sale, and have enough judgment to avoid talking himself out of the sale again. When the job is done he is on his way to the next customer. He is the kind of guy that does not carry a rabbit's foot nor indulge in wishful thinking. He believes that alibis are no substitute for a good, old-fashioned job of selling. His enthusiasm is contageous like the measles. It's like Buzie Beeman says: "The bee that gets the honey, don't buzz around the hive".

A Voice from the Country

"The sum total of the common sense of the common people is the greatest and soundest force on earth." — Thomas Jefferson.



The South Australian Government apiary on Flinders Chase, Kangaroo Island. Mr. John Masterman's residence is at this apiary.

Ligurians in Australia

The Super Quiet Bee

By J. R. Crawford, Macarthur, Victoria, Aus.

Most beekeepers dream of the bee which can be handled at any time with reasonable safety and at the same time having a good reputation for comb building and honey gathering.

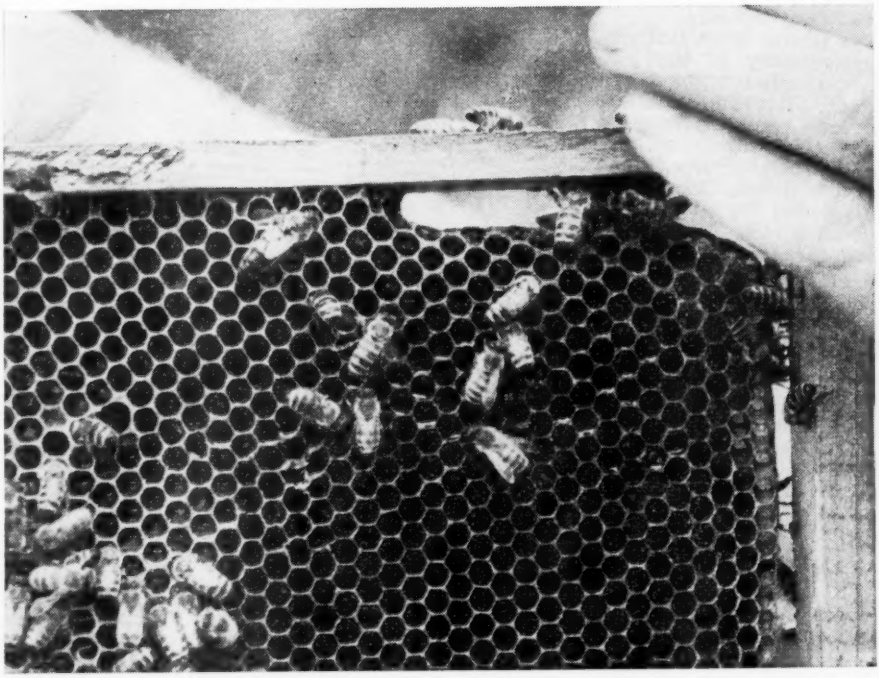
Undoubtedly, these qualities are easy enough to find separately, and occasionally combined in odd colonies, but rarely throughout a distinct strain of bees.

Swarming, of course, is a characteristic which is undesirable, but I have yet to see or hear of a breed of bees which will not swarm out in a light flow, and when there is plentiful pollen. It seems that the bees have little else to do, and as brood rearing is going on apace, the obvious procedure is to swarm.

However, I don't claim that the Ligurians have any marked anti-swarming features, at least as we have found them. We are in a bad swarming part of Southern Australia and it often seems that the best thing to do would be to clear out until it is all over.

The Ligurian bee originated in Northern Italy, as do most Italian bees. The difference in the strain to which I refer, is that in the last 50 years, the bees seem to have fixed a type of their own, assisted as they were by isolation and climate.

Fifty years ago, approximately, apiarists commenced beekeeping on Kangaroo Island, which is a fair-sized island about 30 miles long, off the coast of the State of South Australia. The island grows a large variety of flora, mainly of the eucalypt family, and is ideal for honey production. However, those pioneers did not have the transport facilities we have, and after a time, gave it up as an economic proposition. The bees originally taken to



A Ligurian queen and bees on comb. Note whitish bands on abdomen.

She is not worrying a bit.

the Island were Italians, presumably of the yellow-banded type. However, after 50 years the color has changed slightly and the bees are much darker. The yellow bands have been displaced by one of a whitish hue. The drones are large, dark, though not black, and the queens are very large and a dark brown. The isolation of the island was a great assistance in maintaining the purity of the strain, and the fact that many swarms made their homes in logs and caves caused them to develop hardihood. More than one swarm was seen to have built combs on exposed rocks. The colony photographed was found in a four-foot log. When apiarists discovered the qualities that these bees possessed apiaries were started to breed queens for sale. No better illustration of the easy handling traits shown by these Ligurians could be given than the demonstration at the State Apiarists' Conference of South Australia. On this occasion, a colony was opened for the information of delegates, none of whom had any veils or other protection except ordinary clothing. The bees showed no resentment at being disturbed, despite the fact that the month was June—mid-winter for us.

Mr. John Masterman caging queens.

My own experience in the apiary confirms these claims. The Ligurian colonies may always be examined when the ordinary Italians are too hot for convenient handling, and queens usually seemed unperturbed at being gazed on.

There are not many breeders of this strain of bees at present, but the demand for queens is good.

The photographs accompanying this article were taken by courtesy of the State Government Apiarist, Mr. John Masterman.

Caution in Using Para-dichlorobenzene

By E. H. Hamann, Riverside, Conn.

Using combs fumigated with para-dichlorobenzene may poison bees. I killed one three-pound package by placing the bees on such combs which had been aired two days before installation. A friend of mine with out-apiaries rushed combs from storage to catch three swarms the same day and lost all three.

This fumigant appears to be efficient for winter storage, is easy to use and presents no danger to humans in the amounts required. Nowhere in the books on beekeeping can I find reference to this danger. This should be emphasized!

I should add that a second package was successfully installed on the same combs ten days later. These combs were empty drawn combs containing no pollen or honey. The hive was closed except for a one-inch entrance.

Line Breeding for Bees

By C. H. Brown, London, England

I have been working for many years as a cotton breeder in Egypt, and have been interested in working out in my mind how far the methods and principles of modern plant and animal breeding can be applied to bees. What are these principles? I think the two basic points are: (1) Preservation of a pure line by breeding within itself only; (2) outcrossing to produce diversity to give us a possibility of selecting new forms.

Few of us in practice are able to keep our bees pure, so that what progress has been made in improvement in bee type has come from the second point. In other words, our best bees are a selection from stocks of hybrid or even mongrel origin.

Just recently the technique of artificial insemination has been developed to a practical point. But practical, we may say, only for the research institution, and not for the average amateur. So I have wondered if there is not a way in which the smaller man can use some scientific method to improve his bee-breed, and it seems to me that what animal men call line-breeding may have unexplored possibilities. It means in effect a combination of some of the merits of methods (1 and 2), that is, a purification and improvement of a type without the narrow limits of strict self-fertilization.

All that sounds fine, you may say, but just what does it mean in terms of my bees? Here's the way I've planned it: I want to start with an apiary of from 20 to 50 stocks. If it is isolated, it would be better, but if not I don't think that so important: I want to work through the influence of the male, and I want to flood my apiary with selected drones. I'd expect a large part of my virgins to be mated with my own drones. Some people have argued that a virgin generally mates with a drone from her own hive, though other students haven't accepted this. But if I can flood my apiary with my own drones, it seems reasonable to expect that outcrossing from other apiaries would be small.

So now let's begin the line-breeding. I'd start off by trying to equalize all my stocks as much as possible. Of course I wouldn't quite succeed, but I'm trying to make a race with a fair start, and the unlucky ones who started badly would just have to be left out of the reckoning. Then I'd judge the rest—those which did get a fair start—on one quality only, honey production. Just as the plant breeder looks for high yield, so we do in bees. How or why one stock produces more than others, is, I'd say, their problem, not mine. Naturally the non-swarmers would have the best chance of being at the top. Of course, I'd have to work all my hives on a standardized system, and I'd try to start them all off with the maximum number of perfect brood combs. Is all that clear? Then we'd spot the winner. I'd start them all off again next year, but the top honey producer of the first year would be treated differently. It would have a set of drone combs, encouraging it to produce as many drones as it liked. The more the better, as I want the new season's virgins mated with drones of this stock.

Last year's best stock would be out of the running this year. Its drone brood wouldn't let it make the surplus. Another stock would be top, and then that would be chosen as the father in the third year. And so, in a series of years giving the best stocks a chance to dominate the male line, I'd hope to improve hereditary producing power. It's exactly the same principle as choosing your bull calves from mothers with the highest milk production. It's a line bred through the male.

Of course there are snags in all this, like in anything else. I'd work my stocks as far as possible on the let-alone system, and I wouldn't requeen. The stocks that insisted on swarming would put themselves out of the honey race, but their new virgins would be mated with drones from mothers who hadn't swarmed, and had been top producers. The plan would favor stocks that didn't swarm, that requeened themselves by supersedure with the least fuss, and that got on with the job. The stock we all want, in fact. I know I can't guarantee that my method would succeed. But it sounds reasonable and I'd like to try.

What do readers think? We see all around us improved forms of plants and stock. We need better bees, all of us are aware of that, and we need new ideas to get them.

"Smoky Joe Hives Again"

By A. Lloyd Hagerman, Idaho Springs, Colo.

Our yard when we were ready to put into effect our swarm control.

After an evening's reading of "Sure Cures" for any and all headaches of beekeeping by both amateurs and commercial beekeepers alike, the timid beginner might well blow out his smoker and ship his bees to his mother-in-law. Either that or like everybody else, try some stunt, be lucky and immediately conclude he is eligible for the Nobel Prize, forgetting that long ago Mother Nature wisely taught her honey gals that there would be men like the least of these.

A beekeeper is a practitioner deluxe, a manipulator and a gentleman with a purpose, always willing and able to tell how he cured his bees of the itch, lumbago, and flat feet. How by a simple home remedy he fostered domestic tranquillity among his plebeians, solved the labor problem, gained favor of his royal majesty, and trained the kids to work like beavers with new store teeth.

All this and more because this genuine and sincere enthusiasm of beekeepers to give out to their brethern stimulates the newly made Smoker Joe to new adventures and better yet, to dare tell how he serves Madame Queen.

For instance, this ritual labeled "Swarm Control": Talk about planting 'taters in the moon or pie plant in June, swarm control is a subject almost as sacred as grandma's favorite recipe for custard pickles. Rubbish! Any back-lot bee-herder can make a few passes at a mail-order hive and come out winner if he will just use a little sense in enforcing the housing act.

So pull up a super and we'll try to keep it simple. Around May first take, for instance, a two-story hive that has wintered successfully and full of them Latin creatures. Better yet, leave it where it is, under the clothesline, on the sunny side of the pasture or by the dam.

Don't fool around and get the cows stung, the neighbors sore, or run up your own blood pressure. All you do is simply this, bring out a super, full of nice clean foundation, and an excluder. You know how the French kings used to lock up their queens when they went on business trips to gay Paree—well this is a faint idea of why the excluder, assuming you have an inquiring mind. Now watch closely. Deftly lift off the second story, set the excluder on top of the first story and on top of that, gently place the empty super with the nice clean foundation; to you who came in late—a super full of frames with either new or drawn foundation. Now pick up the old second story with its occupants and, like a kid building a block house in front of

the kitchen stove, place it on top of the newly added super making a three-story hive. That's all you have to do in 25 moves or less. Easy, ain't it, defies all rules and some old boys with propolis in their beards would say "tain't legal".

Funny about the durn thing though! It works. Madam Queen, according to no poll, will in 98 times out of 115 already be upstairs, if she gets around at all. Now she can come down one flight and have a brand new nursery to putter around in. The kids can and will come down, too, and on out into the backyard and to fields of clover. The original hive space is increased 50 percent, which will even please an Anne Boleyn strain of queen.

This elementary manipulation puts the old second story up where at the end of the season or whenever supers are removed for extracting, allows a real clean-up campaign on this usually congested parlor bedroom. If the queen is of the old sophisticated or rocking chair type of sister and by chance down on the ground floor gossiping when you put on the excluder, don't worry. She likely has been upstairs anyway and certainly this simple manipulation beats tearing up hives, having difficulty trying to find queens and maybe losing them. Anybody can shuffle a hive this way, no fuss, no bother, and easy on the bees.

About June 15th, depending on when the first honey flow starts, pull out the excluder and go ahead with top supering as needed. This method works, the bees like it and usually decide to renew the lease. If this routine is followed you always have fresh supers each season, all except the ground floor and if you are fussy and want to get fancy, swap that brood chamber around every other year.

We are getting results by this simple, fast method. It beats messing around, pulling out frames looking for queens, et cetera, has cut down on swarms, and increased production. Try a few hives for yourself and if it works write at least a limerick.

Tidewater Beekeepers Set Plans

The executive committee of the Tidewater Beekeepers' Association, whose membership includes beekeepers from twenty-five counties of the Tidewater area, set plans for the forthcoming beekeepers' meetings on August 18th and September 4th and 5th in Newport News, Va. Seated left to right, John M. Amos, Extension Apiarist from VPI, Blacksburg; T. L. Belvin Donnelly, treasurer; Miss Emma C. Mast, secretary; (standing) Ray Womble, president; and Elmer B. Givens, vice-president.

Memorial Tribute to

Everett Franklin Phillips

November 14, 1878 — August 21, 1951

Everett Franklin Phillips, Emeritus Professor of Apiculture, died at his home on August 21, 1951, after a lingering illness. In spite of his disabilities, he worked on problems of beekeeping until the day before his death.

The son of a Methodist clergyman, Dr. Phillips was born and received his early education in Ohio. He was graduated from Allegheny College and took advanced work in Zoology at the University of Pennsylvania. At Pennsylvania he held scholarships and fellowships, and was granted the degree of Doctor of Philosophy in 1904. In 1905 he went to the Department of Agriculture, Washington, and after two years became head of the work in Apiculture, which post he retained until coming to Cornell University. In 1929 his alma mater granted him the honorary degree of Doctor of Science.

Professor Phillips' doctorate thesis was a study of the compound eye of the honeybee, and that work interested him in beekeeping. On being made Head of the Division of Bee Culture in Washington he began to develop the much needed scientific work, and enlisted the help of scientifically trained men whose names are now familiar in the world of beekeeping. In 1911 he undertook work on one of the most important problems in beekeeping, the behavior of bees in winter and the wintering of bees. He worked out methods for the eradication of European foulbrood, which have been highly successful. Work begun in Washington on physical properties of honey and expanded at Cornell contributed greatly to our knowledge of methods of handling honey.

He also worked on the bee louse, and in 1922 was influential in obtaining legislation to protect the industry in North America from the introduction of bee diseases from other continents. He did much work on pollination and presented the available evidence on the effect of the insecticides on other pollinating insects. He also studied the relation to bees to fireblight.

During the first World War Doctor Phillips conducted an intensive campaign to stimulate beekeeping, primarily by encouraging a change from comb honey to extracted honey production. Commercial honey production increased in that period about 400 percent. It was then that extension work in beekeeping was begun in a few states, and the work was so successful that it has been continued. A notable group of men performed their first public service to beekeeping in this undertaking. For some years these men held most of the state positions, and when more men were needed, several of Professor Phillips' students from Cornell became engaged in this work.

Doctor Phillips was editor of the apiculture section of Biological Abstracts and twice served on the editorial board of the Journal of Economic Entomology. He was the author of "Beekeeping", published by the Macmillan Company, which has been translated into Russian. He wrote more than 600 bulletins and articles for technical and scientific journals, several of which have been translated into other languages.

He visited Europe four times and studied the work of leading investigators in Switzerland, Austria, Germany, England, Scotland, Jugoslavia, Czechoslovakia, Cuba, Mexico, Puerto Rico, Hawaii, and every state of this country. He maintained correspondence with leading apiculturists all over the world and he was honored by election as Fellow of the International Apis Club, of which he was president in 1926. This club awarded him its medal in 1924. He also received medals from three French beekeeping societies and one in Czechoslovakia. In 1932 at the invitation of the government he visited the Soviet Union to assist in beekeeping aspects of the Second Five Year plan.

He was a member of Phi Beta Kappa, Sigma Xi, and other honorary scholastic societies, and of the social fraternity Phi Delta Theta.

Professor Phillips was responsible for the establishment of the Miller Memorial Beekeeping Library at the University of Wisconsin and built up a similar library in the Bureau of Entomology of the United States Department of Agriculture. On coming to Cornell he again started a beekeeping library and ar-

ranged for its endowment. He presented his personal collection on beekeeping to the Library and obtained additional books and journals through exchanges with individuals and institutions in other lands.

Some notable private collections have been included, such as the entire library of Moses Quinby, all books known to remain in the libraries of L. L. Langstroth and Dr. C. C. Miller, the Evard French library, the John Anderson Scottish library, and a large collection of European first editions. Langstroth's hand written journal, his letter press book, and a diary of Quinby are among the most precious items.

The library now consists of more than 3000 books and volumes of bee journals and with adequate funds assured, this library will remain supreme. In recognition of the contribution which Doctor Phillips made in this field, the Board of Trustees designated this collection as the "Everett Franklin Phillips Beekeeping Library".

As a teacher Dr. Phillips attracted many graduate students to Cornell. Most of them are now in charge of important phases of beekeeping in this country as well as in Canada, China, Czechoslovakia, India, and the Union of South Africa. He gave unsparingly of himself to his students and all of them were stimulated by his interest and enthusiasm in their work. For example, the help and encouragement given one graduate student resulted in a method for processing honey which is now used throughout the world. The patent for this process was given to the University and largely because of his interest and supervision it has brought to Cornell a considerable sum of money for research in apiculture.

Doctor Phillips worked also with entomologists. He served on various committees of the Association of Economic Entomologists and the Entomological Society of America and as president of the former in 1935. At the outbreak of the last war he became chairman of the joint committee for coordination of entomology with the war effort. He was a member of the Crop Protection Committee of the National Research Council and a committee of the Economic Entomologists to promote the establishment of a national science foundation. He was a member of the Philadelphia Academy of Natural Sciences, the Society of Naturalists, and the Biological Union.

People in Ithaca probably knew Doctor Phillips best for his civic activities. He was president of the Ithaca Community Chest, on the executive committee of the Council of Social Agencies, member of the Boards of Directors of the Ithaca Reconstruction Home for Infantile Paralysis, the Salvation Army, and the Family Society. He was a commissioner of the Department of Public Welfare of the City and chairman of a committee on a war memorial. He was also a trustee of the Hazel Hurst Foundation for the Blind, Monrovia, California, and Tompkins County chairman for United Service Organizations. In 1945, he was elected a director of the New York State Association for Crippled Children, was made Vice President in 1940, and became President in 1950. A resolution passed by that Association at the time of his death said in part: "Infirm in body . . . but unquenchable in spirit, he served us well until the very day of passing."

Rotarians everywhere knew him as well as did beekeepers. He was president of the Ithaca Rotary Club and the next year became governor of former District 28 of Rotary International. In 1936-1937, he was chairman of the International Service Committee, and in 1939 was elected director and third vice-president of Rotary International.

Doctor Phillips was well known in the beekeeping industry throughout the world and was directly or indirectly responsible for much of the basic research work in apiculture. His keen analytical mind and forthrightness of character engendered respect and confidence among all who knew him. It is common knowledge among men engaged in the beekeeping industry that he will go down in the records of beekeeping history as the greatest scientific apiculturist in our time.

Dr. Phillips is survived by his wife, Mary Geisler Phillips, three sons, and five grandchildren.

[1]Written by a committee composed of Dr. E. J. Dyce, Professor of Apiculture, Cornell, Dr. P. J. Kruse, Emeritus Professor of Extension Education of Cornell, Dr. C. E. Palm, Head Department of Entomology, Cornell, Ithaca, N. Y.

XUM

Continued Hot

By Mrs. Benj. Nielsen,
Aurora, Nebraska

Keep honey wafers on hand for accompaniment to those frosty honey-way beverages.

Seems as though that's all the weather man can say these days—continued hot! And it's too hot to eat, too! Come on, let's have a picnic. Lots of fried chicken, thin bread and butter sandwiches (using the honey cinnamon bread from the recipe last month), chilled sliced tomatoes, sliced cucumber and onion appetizers, a freezer of honey sweetened ice cream, crisp honey wafers, and tall frosty honey way drinks. Or, if there are those who insist on hot coffee the year round, dust off the old thermos jug and take the honey jar along—or, make coffee on the spot. (Incidentally, picnicking just may make us appreciate eating in the comparative cool of the house, sans bugs and flies!)

Whether you decide to picnic afar, or eat in your own back yard, you will enjoy these refreshing health promoting, fruity honey-way beverages. They are grand to have on hand at any time—picnic or not.

Honey Cherry Punch

One large can unsweetened pineapple juice, 4 cans frozen orange juice, 2 cans frozen grapefruit juice, 2 cans lemon juice, 1 cup maraschino cherry juice, 1½ cups honey, 2 quarts ginger ale, 36 maraschino cherries frozen in ice cubes and 4 limes, cut into thin slices.

Combine pineapple juice, defrosted orange juice, grapefruit juice, lemon juice, and maraschino cherry juice with the honey. Blend well. Chill in refrigerator. Just before serving add ginger ale. Float maraschino cherry ice cubes and slices of lime in the punch. Serves 20.

Honey Tea Punch

Four cups hot tea infusion, 1½ cups honey, 2 cups orange, 1 cup lemon juice, 2 quarts ginger ale, 1 quart orange sherbet, and slices of lemon or lime.

To make hot tea infusion, use ½ cup tea and four cups boiling water. Let steep 5 minutes. Strain and pour over honey, stirring until dissolved. Add fruit juices. Just before serving add ginger ale and slices of fruit. When ready to use, add orange sherbet. Serves 25.

Honey Wafers

One-half cup butter, ½ cup honey, ½ cup ready-to-eat bran, 2 cups sifted flour, 1 teaspoon soda, ½ teaspoon cinnamon, ¼ teaspoon cloves, and ¼ teaspoon allspice.

Blend butter with honey; beat until creamy. Crush bran slightly; add to first mixture with sifted dry ingredients. Mix thoroughly; chill. Roll dough on floured board to about 1/16 inch thickness. Cut with floured cookie cutter; bake on greased baking sheet in moderate oven, 350 degrees F., about ten minutes. Dough is excellent for cutting fancy shaped cookies because it holds its shape. Yield: 5 dozen cookies (2¼ inches in diameter).

Honey Banana Ice Cream

Three cups milk, 3 cups cream, 1½ cups honey, juice of 3 lemons, juice of 3 oranges, and 3 bananas, mashed.

Combine milk, cream, and honey, stirring until honey is blended. Freeze in ice cream freezer until mushy. Add fruit juices and bananas; continue freezing until firm. Remove dasher; pack for 4 hours. Makes 1 gallon.

Second Glances

C.M. Isaacson

The actual process by which a seed is produced is clearly put by the simply prepared illustrations and text beginning on page 393. With the sale of pollination services becoming more and more common, it is well to have an understanding of how both pollination and fertilization occur. The article is a timely one and should be a help in refreshing our perhaps forgotten early knowledge of the matter.

The articles on beekeeping in other countries has been an interesting series. The one on New Zealand is no exception (page 396). It is worthy of note that nearly all New Zealand honey is sold in a granulated form. Evidently the over-emphasis on syrup-clear liquid honey has not reached there as yet. We might also note that the per capita honey consumption is about twice ours—and that "south" in New Zealand is about the same as "north" in our land.

The hobbyist beekeeper is perhaps more careful of details than most of us who have been in the business for some years (page 400). One reason is that he has more time to spend with each colony, and finds it enjoyable. Then, too, as beginners we hardly dare to take liberties with the "instructions" that come with bees and equipment. But it is all fun! I like Mr. Pearson's statement on the really stricken beginner that "never again will he be the same person." That is all too often true.

Old stand-bys may disappear, says Robert Mead, and it is well to encourage planting of other varieties of honey plants as substitutes. That is surely a good suggestion, and among the many kinds mentioned should be some suited to almost any locality. Among trees, basswood especially is very good for here in the North. When it really yields, it "puts out" perhaps faster than any other honey source. Yards within reach can change from just-so to real prosperity in a remarkably few days (page 403).

A really firm foundation is very much a help in assembling supplies. David Bone's cement block fulfills that requirement amply, and I can well imagine it has been of much use to him in countless ways besides this, as he mentions (page 404). But don't say that you degrade your block by sitting down on it, Mr. Bone. A good resting place is exalted, rather, and I dare say that no other of its thousand uses gives more complete satisfaction. Seriously, many workshops could profit by constructing something similar.

Anti-histamines for relief from bee stings may be a promising remedy for those whom these respective medicines benefit. Mrs. Armitage's account of her experiences (page 408) and Claire Halliday's on page 436 agree in that the effect of stings is largely allergic in nature. Such being the case, the anti-histamines in various forms will be of much value for those badly affected by stings. Items like this deserve a thank you.

Locations a short ways apart often bring quite startling comparisons in crop yields, and even a minor honey source, if it blooms at the right time, can make a big difference in a season. Yards close to willow build up much better in the spring for us than those where it is lacking. Your huckleberries may help you out a good bit, Propolis Pete (page 410).

That honey chocolate sauce can be used in a variety of ways besides on ice cream (page 411). If you don't need to count calories (I am one of those fortunate number) one of the best is to eat it "out of hand" (or as that would be slightly sticky, I should say "spoon", I suppose).

The uncertainty of securing a crop makes beekeeping interesting, says the quotation in Editor Deyell's Talk to Beginners. Yes, that is a good part of it, and perhaps I should also quote a friend of mine who says that a bee colony, being largely female, is always full of surprises. No disparagement meant in the least — men would be a sorry lot alone!

Colony morale is a real factor, as one finds out when a smaller to-begin-with colony can store far more than another next to it. Colonies that reach the main flow with the queen in full vigor and just about or at their peak in population will store a crop if it is to be had. A whole apiary of such colonies would be a beekeeper's dream (page 418).

Live and Learn

By Propolis Pete

A problem has just been solved. Something that I have tried to lick for, let me see now—1935 to 1952—17 years. The problem was, how to provide water for my bees so that they would not bother the neighbors.

The very first year that I struggled with a package of bees that insisted on swarming when I had no equipment to put them in, one of my neighbors complained that my bees wouldn't let their dog come near his water pan. Ever since then I have been trying to find a way to stop them from going where they don't belong, with no luck. Everything that I tried was ignored. If they didn't go to the dogs, they would go down the hand pump outside my workshop. If they didn't go there, they'd sit by the thousands, drinking the bilge from another neighbor's boat.

In the Root catalog, under the heading "excluders", I found that bees prefer to walk on wood. So I made an elaborate waterer with a nice wooden rack for them to sit on while they got their drinks. Did they use it? Nope. They found an old rusty pan under the eaves where rain water would accumulate, and went there by the millions. We thought that a bird bath would look nice in the garden, so bought one. The bees loved it. The birds would come and sit on a bush nearby and look longingly at the water, first with one eye and then the other. Then they'd fly away, cursing in avian. (That's bird language.) The family informed us that something must be done. We left the bird bath empty.

Did you ever buy those salt mackerel that come in little wooden tubs? I like them, and the tubs have a hundred uses after they are emptied. I had one setting on a bench outside my workshop, and the first time it rained it filled with water. The instant it cleared up all of my bees came, rejoicing over what they had found. But I could not leave it there. Customers coming in didn't like to breeze through a cloud of bees to get in. So, I says to myself, here is your answer. The bees like the tub, and maybe the salt in the wood helps to make the water more tasty. So I rigged up a jar full of water on a block in the tub to give a constant level that wouldn't drown the bees, and made a nice platform right in front of the row of hives. The bees could get water by standing on their doorsteps and sticking out their tongues. They went back to the dog's dish.

One year, I noticed a hundred or more bees on a wet rag that came out of an old tin can. I was sure this time that I had the answer. I took a five gallon can, punched a hole in the bottom and stuffed an old pair of pajama pants into the hole so that it wouldn't leak, but would stay wet. The bees went wild over it. For three days. Then they didn't notice it any more. I don't know why.

I said at the start that my problem is solved. It is, and quite unintentionally. It has always been my ambition to have a nice pool in the garden, with pond lillies, frogs, and fish. A little while ago we had to have a new cess pool built, and while the contractor had his men and machinery on the job, I had them dig a hole and make me a cement basin six by ten feet, and two feet deep. The bees love to sit on the edges where the soil is moist from absorption, and drink to their little hearts' content. Those brave souls who try to go in for a swim sooner or later run into a piece of the cabomba or myriophylium put there for the fish's benefit, and can crawl out none the worse for the bath. The bees don't bother the neighbors any more.

Water is important to bees. In the early spring they need it to thin down the honey from their stores to make the larval jelly. When there is a honey flow, they seem to get enough from the nectar that they bring in. I have noticed that when they are putting up honey, they don't go after water to any extent. In times of dearth they gather a lot, and when the dearth comes in hot weather, they bring it in by the gallon, and I am not kidding. They use it then to help cool the inside of the hive, and also again to thin down the honey that they are again consuming from their stores.

They will go to the strangest places to get it. In my case they preferred the neighbor's, not to the

(Continued on page 505)

American Honey Institute News Notes

By Phyllis Rasmussen
Commercial State Bank Building
Madison 3, Wisconsin

Whoa! Stand still a minute, you busy beekeepers, while we let you in on a secret — a secret that is so good folks will soon stop hush-hushing it and start hurrahing instead.

This is it: A new, complete recipe file box of all honey recipes has hit the honey industry. Put out, of course, by the American Honey Institute, this file box is a dream come true not only for the folks at the Institute but also for you honey people, who are forever looking for the absolute top in honey promotion.

We think we've hit that "top" with this recipe box. Just take a look at the accompanying picture and you will see what we mean.

Let us describe it to you. . . .

The box itself is built of sturdy cardboard and opens with a hinged lid. It is standard recipe card size, so every homemaker will find that her present recipe cards can be filed in it.

Colors are red and yellow — or if you prefer, green and yellow. Top of the box says "Favorite Honey Recipes", and around the sides are free-hand sketches of flowers and leaves. Printing is done in black, but the word "Honey" on the top of the box is fancifully printed in the two-tone color scheme.

Inside are the customary file separators, one each for beverages, breads, cakes, cookies, desserts, meats, menus, salads, sandwiches, sauces, vegetables, and specialties.

And then comes the crowning glory of this recipe box: under each of these headings, the Institute has carefully gleaned its very best tested recipes, printed each one on a separate card, and filed it properly. **There is a grand slam of 64 recipe cards in this box.** Each recipe is tried and true, each recipe is designed to make honey a constant companion in every home that has one of these boxes.

That all-important finishing touch that sets off this recipe box from all others is simply this—**on the front of each recipe card is printed a picture of the recipe in finished form.** No need to guess what these recipes will look like as finished products. The homemaker will know in advance how the honey cake she is making will turn out when she is through baking it.

The attractive recipe box

Anyone who has had even one picture cut made will appreciate the thousands of dollars worth of cuts this recipe file boasts of.

Besides recipes, the Institute has taken great pains to include menu suggestions for the homemaker; there are 22 of them in all. And of course they all include honey.

This is what the honey industry has been waiting for so long.

Give yourself up to your imagination for a moment and see what this recipe box can mean to you and to every beekeeper.

The box would sell like wild fire at any state fair or display booth or honey stand. This is what homemakers like and want; it is what beekeepers want homemakers to like, for it puts honey ideas into the minds of the nation's cooks.

Those extra good customers of yours who come back every year should be rewarded. Reward them with a free recipe box. It will be the cheapest way you can ever buy that most precious of commodities, good will from your customers.

See that each high school cooking class has one for reference. Teach the honey idea at an early age and it will blossom forth at a later date.

Be sure your name and address are pasted inside the lid of the box,

(Continued on page 507)

A Talk to Beginners

By M. J. Deyell

Still in a Quandary

When I dictated the talk for July I wondered if bees would store any white honey this season. This is July 14 and I am still wondering but have almost given up hopes of securing surplus summer honey. Weather in this vicinity has been dry and hot — the temperature is scheduled to go to 95° today. We get reports from other parts of the country that bees are storing surplus but it would seem that the crop in the clover regions is quite spotted this year.

Well, there isn't much to write about during the present situation. When bees are securing a good crop and honey is rolling in, it is not difficult to write.

Basswood Trees Did Not Yield Nectar

I counted 24 basswood trees within a short distance of our four colonies, just west of the Gleanings office. The bees did visit the blossoms but apparently got very little nectar. Some seasons, basswood yields nectar quite well. This is one of the off seasons, at least in this locality.

Bees Barely Making a Living

During the past few weeks it has been necessary to feed some colonies. It is interesting to note the differences in yards a few miles apart. One yard will have practically no stores; a yard three or four miles away will have a little sealed honey in the combs of the brood chambers. Apparently, the yards that have enough honey to live on have access to nectar sources not available to bees in other yards that are on the verge of starvation. If one would take the time to canvas the area surrounding the yards, he would likely find the sources of nectar.

Feeding Dry Sugar

This may appear to be a lazy man's method of feeding bees. However, we are using this plan mainly because it is the simplest way we know of to supply bees with food. It requires little labor and does not get hives of bees stirred up to cause robbing. We simply carry a bucket of granulated sugar and a small dipper, and pour as much sugar on the inner cover as the space between the inner and outer covers will permit. Of course, we remove

M. J. Deyell

the block covering the hole in the middle of the inner cover so the bees can get up to take the sugar. In the past we have found that when they need sugar they will take it. If they do not need it, they will leave it alone. We must give the bees credit for knowing a thing or two!

Some Observations

Contrary to what one might think, bees short on stores are very gentle to handle. Perhaps that is because they do not have much honey to protect. I have gone into a number of colonies in my own yards without using a smoker. I did wear a veil and in most instances, gloves.

We have observed an ample supply of pollen. However, within the past few days, pollen has not been plentiful in the combs. Brood rearing has kept up quite well.

We have found comparatively few old worn-out queens. Possibly this is due to the fact that the queens have not been worked as hard as they would be during a very rapid honey flow.

Bee Spaces in Hives

Some years ago, we maintained ten standard combs in a 10-frame brood chamber. During the past few years in some of our hives, we have used 9 instead of 10 frames to each 10-frame hive. Personally, I do not like 9-frame spacing. In many instances the bees will build brace combs between the top bars of the frames. When 10 frames are used in a brood chamber and the frames are pushed together, there is

a bee space of 5/16 inch between each top bar. This is exactly right and if this space is maintained, there will be comparatively few brace combs. If, however, the frames are spaced 9 to a brood chamber, the spaces between the top bars of the frames will be a little more than 6/16 inch or ⅜ inch and consequently brace combs will be built. Such combs are a nuisance because when the frames are put back into the hive after being removed, a number of bees are likely to be killed, unless the operator takes time to trim these brace combs off each top bar with a hive tool. This, of course, takes considerable time.

We intend to clean the brace combs off the top bars of frames now spaced 9 to each brood chamber and put 10 frames into each. It seems to me that beekeepers should pay more attention to the correct bee space in hives. It has been found that if the space is less than 3/16 inch, the bees will plug this space with propolis; if it is greater than 6/16 inch they will build burr comb or brace comb. By the way, the term "brace" comb is usually applied to comb found between top bars of frames, and "burr" comb is a bit of wax built upon a comb or the wooden part of a hive, the bees apparently having no object but to use up wax.

Some Consolation

About the only consolation one has in not securing surplus honey is that less labor and time have to be expended in caring for bees. However it is preferable to get a crop of honey and it is a thrilling experience to secure a bumper crop of honey even though considerable time and labor are needed for harvesting the crop.

We usually get a crop of fall honey from goldenrod and aster in this area. It is not uncommon to average 40 pounds or 50 pounds per colony. We are hoping for a good crop this fall to offset our failure to secure summer honey.

Requeening

The month of August is considered one of the best of the season for requeening. It is well to remove all worthless queens and introduce young laying queens from a strain known to be of superior honey-gathering qualities. Queens put in during this month have time to produce populous colonies before winter, which helps to insure good wintering. These queens should be in their prime next season.

Apiary of J. L. Maul, Hamlet, N. C. is in a sheltered spot protected from the hot sun.

There are different methods of introducing queens but the one commonly used is found on the reverse side of the address card attached to the queen mailing and introducing cage, as follows:

Directions for Introducing Queen

First, be sure the colony is queenless. If the colony has been queenless 10 to 16 days make sure there are no virgins in the hive. It is best not to remove the old queen until the time of introducing the new one; but if several days have elapsed, be sure to remove all queen cells. To introduce; place cage between or on top of frames directly over the cluster. In the latter case the wirecloth should be down. The bees will usually gnaw away the cardboard covering the candy, eat the candy and release the queen. The cage should be examined 24 hours after it is put in the hive, and the card covering the candy removed, if the bees have not gnawed it away. The colony should not be disturbed again for five days. Should queen and attendants arrive feeble or daubed up, release her at once among the bees. If, after they have cleaned her up, they ball her, return her to the cage and introduce, as explained. If queen arrives dead, notify us, also return her to us immediately in her cage and we will replace.

N. B.—Queens just from the mails usually look small and dark. After a few days they will improve.

Differences

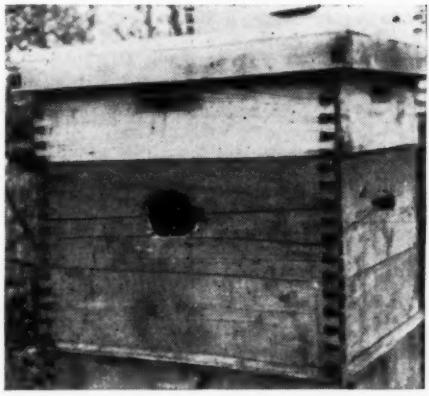
By R. O. B. Manley, Benson, Oxford, England

I am an English beekeeper dependent entirely upon honey production for a livelihood, and what interests me most is the difference between American problems and ours. We rarely have snow like your country does, or if we do it does not lie for long except in most unusual winters. Snow here is a mushy mess that soaks into everything, not a dry powdery stuff, like yours in the North.

We could never winter bees in my locality in hives like some I see in photographs of yours in the States; they would be torn to pieces by woodpeckers in short order. Holes would be bored where the hand-grips are and the thin strips at the rebates at the frame ends would also be torn off as soon as hard frost or snow came. You don't, apparently, have that trouble. Shallow roofs are useless here because they don't cover the hand-grips.

Sometimes correspondence with friends in U. S. A. gives me the idea that American beekeepers have the idea that we in this small Island have few, if any, wide open spaces; but although our population is enormously greater than yours in regard to its area, yet the bulk of it is concentrated in five principal areas and as a matter of fact a good deal of our best bee country is extremely thinly populated, but fairly intensively farmed.

Take the country of Berkshire, where a large portion of our bees are situated. In the area of the Downs with Wantage in its center, and the ancient monument of the White Horse, we have wide sweeps of open country, covered with nectar plants of many kinds, the blend of which, we think, gives the honey the bees store from them a specially fine flavor. From the top of White Horse Hill one can see far on a clear day, and not a soul in sight. One can look far across the Vale where Wantage is. This old town or village is the reputed birthplace of King Alfred, the only monarch we English have ever surnamed "The Great". Wantage derives from old English Wanotinge, meaning a decrease or an intermittent stream. Some of the streams about here dry up in the summer, like the river



Woodpeckers cause a lot of trouble by making the hand holds bigger.

Lambourne. We have apiaries strung out for many miles around this district, where they do as well as anywhere.

Charlock is one of our most important nectar sources, and sainfoin is another. Red and white clovers, beans and many minor flowers that grow on the chalk downs are our other sources. Weather is our trouble, both in winter and summer. It is too wet, for the most part, in both seasons; but in summer we suffer most from low temperature, seldom for lack of moisture. I have found that provided the temperature be sufficiently high, honey is stored; but we don't have the sort of hot weather described in American bee literature, which we in England gather more by inference than otherwise from such writings.

But beekeeping in England is a grand life, and in fine warm weather especially so. When one stands on the top of the White Horse Hill on some breezy day in April, with the skylarks singing overhead, and the shadows of the clouds chasing one another across the landscape, one has a feeling of freedom not found in towns. Far across the Vale a railway train creeps towards Swindon, looking like some crawling grub in the distance, and on the other side are many relics of the prehistoric past — earthworks, barrows, etc. to remind us that this England of ours is very old.

A Load of 600 Colonies of Bees

By Ken Bradshaw, Wendell, Idaho

A very big truckload of bees from Idaho to California for pollination purposes.

We had an order to furnish 1800 colonies of bees for a pollination program. It involved a haul of 1200 each way, from Northern Idaho to Southern California. We are happy to report that the delivery was successful and made without the loss of a single colony. The bees were hauled with open entrances without screens; however, the entire load was enclosed with a plastic screen made to fit. Complete delivery was made during the month of May, 1952.

The truck tractor is a Kenworth Chassis with Cummins Diesel motor, coupled to a 32-foot Freuhauf Trailer. The exhaust stack is extended to keep the smoke fumes away from the bees.

The same unit is used by us in hauling package bees from California to our various production outfits. We enclosed the semi with a canvas top and this spring we made two trips, hauling 2000 packages per trip. Plenty of ventilation can be obtained by opening the front end as required. With the high express rates now in effect, a big saving is obtained, and the losses kept at a minimum.

Royal Jelly for Cancer Research

In view of the fact various bee products might have some effect on cancer, The **Sloan Kettering Institute of Cancer Research** has decided to do some research along this line. One of the products to be studied is royal jelly. Any beekeeper interested in helping this cause can do so by collecting this royal jelly. While it is rather late in the season, some may still have an opportunity to collect it. Simply cut out the queen cells, remove the larvae and squeeze the jelly into a small glass vial. Queen cells just before they are sealed are usually the best source of jelly. The container of jelly should be kept in the refrigerator until shipped. It can then be sent by parcel post to: Dr. C. Chester Stock, Sloan-Kettering Institute, 410 East 68th St., New York 21, N.Y.

Editorials

Postoffice Requests Further Increase in Parcel Post Rates A request has been filed with the Interstate Commerce Commission by Postmaster General Donaldson for a revised scale of parcel post rates for fourth class mail to be presented about the first of next year.

Many queen bee shippers have been using parcel post for shipping package bees with considerable success. This has been true particularly since express rates have mounted so rapidly, and experience with parcel post shipments have shown that bees can be mailed with as good or better chances of survival on the trip.

It is hoped that it will not be necessary to increase the problem of shipping bees by a still higher parcel post rate.

* * * * *

Beekeeping in Argentine We note from the Apicultural abstract reprinted from "Bee World" for May, 1952 that Argentine is one of the most important beekeeping countries of the world. It has many nectar plants, and different kinds of clovers are grown extensively. Langstroth hives with Hoffman frames are standard equipment.

There is an estimated half million colonies that produce 12 million kg. honey a year. In some areas 70 kg. per colony surplus honey may be harvested. Honey sells at 55-60 cents per kg.

Two monthly bee journals are published, "Gaceta del Comenar" and "Revista de Apicultura". Each year about 300 beekeepers are given free instructions in evening classes.

At present there are only two adult bee diseases in the country—nosema in a rather mild form and acarine disease which appears to be quite serious.

* * * * *

"Stacking 'Em High" The article with this title which appeared in the July issue brought forth a comment from a beekeeper in a western state where it is not customary to pile supers so high during the honey flow.

Beekeepers in the South do not have any more supers than are actually needed. The wax moth is an enemy of combs stored away during the time they are not in use.

In some sections of the middle West and throughout the East, bees gather nectar so rapidly when conditions are right that it is necessary to provide comb space periodically in order to make it possible for the bees to store incoming nectar so that the bees may drive off the excess moisture and reduce the nectar down to the consistency of honey.

In parts of the West where the atmosphere is dry, the sugar content of the nectar is likely to be high and bees expend less time and effort in ripening the honey than is the case in parts of the middle West or East. In a rapid, long honey flow, it is sometimes necessary to **"stack 'em high."**

* * * * *

"No Bees — No Melons" This is the title of an article appearing in Vol. IV, of Progressive Agriculture, published by the College of Agriculture, University of Arizona, Tucson.

In 1950, some experimental work was done with honeybees, in connection with cantaloupe production by S. E. McGregor and Frank Todd, apiculturists for the Southwest Bee Culture Laboratory which is maintained cooperatively with the U.S.D.A. and the University of Arizona at Tucson. These workers have also put out a reprint of an article appearing in the June 2, 1952 Journal of Economic Entomology, entitled "Cantaloupe Production with Honeybees."

In carrying out the experiment the importance of bees in pollination of cantaloupe cages large enough to cover 40 full grown cantaloupe plants were set over the plants when the first blossoms appeared. A colony of bees was placed in each cage in one group and from other cages bees were excluded. Other plots of the same size covered by cages were staked off to make a comparison. From still another group of cages bees were excluded during the first three weeks of flowering, then a colony was placed in each cage. It was found that cages having bees continuously produced good melons at the rate of 272 crates per acre, while cages without any bees produced only 7 crates per acre.

It is recommended that one colo-

ny of bees per acre is adequate to insure pollination, and that bees should be present at the beginning of the flowering if the grower wishes to produce the greatest quantity of the best quality of melons.

* * * * *

Beekeepers' New Year Some years ago this phrase came into rather general use and refers to the month of August in the northern hemisphere, as a time for starting preparations for securing a maximum crop of honey the succeeding season. In the southern hemisphere, which is approximately six months ahead of or behind our season, the month of February would be the beekeepers' new year.

In any event, it seems essential that beekeepers who wish to have bees wintered successfully then build up into populous colonies ready for all honey flows that materialize the following season, should begin during August to supply all of the requirements for building up populous colonies to go into winter quarters.

Obviously, each colony must be headed with a good, prolific queen, good combs, and an abundance of honey and pollen for bee food during the winter. It may be said that a common cause of winter losses in the North is starvation rather than severe winter weather. A colony which is very populous in bees and has an adequate amount of well-cured honey properly placed in the hive, will withstand the rigors of a severe winter, provided it gets one or two cleansing flights.

A number of beekeepers in the far north kill off their bees in the fall, saving combs containing honey and pollen in single brood chambers for the installation of packages of bees the following spring. Such beekeepers need not bother about a "beekeepers' new year" nor winter problems. They may have to worry about getting packages at the right time in the spring and getting them installed properly. Furthermore, these beekeepers must allow for an expenditure of cash for packages of bees and queens and for express charges which are high at the present time.

It should also be said that there is considerable labor connected with killing off bees with Cyanogas in the fall and removing them from the hives, then storing the hives in a building during the winter, then placing them on their summer stands the following spring, in time to install the packages when received.

Whichever method is followed, the beekeeper must look ahead in order to have colonies up to their peak of strength at the proper time to secure the maximum crop.

* * * * *

Honey for Athletes It has been known for a number of years that honey taken by athletes shortly before they enter a contest will result in an unexcelled source of quick and efficient energy, when needed. The Sports College Research Guide, Toronto, Ontario, has been conducting some experiments during the last three years. This is referred to by Allan T. Brown in his notes for "North, East, West and South" for June, page 360.

It was found in the test, that group members were able to take honey in larger quantities than other foods of the sugar type without suffering the stomach distress which often follows the heavy intake of sugar. Honey could be taken shortly before athletic activities and between periods of activities without digestive distress. It is interesting also to note that honey may be taken after an athletic event, as a sort of pick-up when energy is needed.

When honey was used in large quantities at breakfast, as a sweetener, the athletes participating in the test not only reported more energy but turned in a higher and longer sustained level of work. Their endurance was definitely improved. Members of the Sports College testing group are now using honey exclusively for this purpose.

When these facts become generally known, it would appear that athletic groups over the country would consume a considerable amount of honey. This is one more outlet for honey.

* * * * *

Are Honey Prices Out of Line? The year 1939 is usually taken as the standard for comparison of prices, for World War II had not yet begun to show any marked change upward.

Looking at some comparisons of food prices, we might attempt to prove that prices of honey are very low in comparison to increases in other foods. Wheat, for example, is about three times the 1939 price, —corn, about four times. Coffee

is not a food but if we wanted to get in a frenzy of excitement and work ourselves into a new low of pessimism we could point out that coffee is selling at about seven times the 1939 price, so why can't honey follow suit? But, it is unfair to refer to coffee, for honey and coffee do not compete with each other. That coffee has not priced itself out of existence can probably be laid to the fact that confirmed coffee users have (or think they have) a headache if they do not have their morning drink. Too bad folks don't get a headache when they go without honey! Honey producers are the ones who get the headache when people generally don't eat honey.

It is also unfair to compare honey with corn and wheat. If we were to ask a diner in a restaurant which he liked the better, wheat or honey, the only answer would be a stare. He likes honey on wheat cakes or corn cakes, but that is about the only connection.

It might be argued that honey and sugar do not always fluctuate in price together. However, sugar comes nearer being in the same class with honey than does coffee or corn or wheat. For comparison, look at the price of sugar in 1939 and in June 1952. In October 1939, the average price of sugar was $3.50 for 100 lbs.; the price in June 1952 was $6.51. The increase was not seven nor four nor even three times, but about 85 percent.

No doubt it would be more fair to go back to the **July** 1939 price of sugar which was $2.85 per 100. Comparing this with the present price of sugar, the price has a little more than doubled, an increase of about 128 percent.

Now what has happened to honey? In Gleanings, July 1939, the Government Marketing Report mentioned ton lots or more selling at southern California delivery points, extra white to water white, at a price 4½ cents to 4¾ cents,—with some selling at 5¼ cents to 5½ cents. In the intermountain section two cars of extra white sweet clover and alfalfa were reported sold at 4¼ cents per pound, with one car of extra white at 4½ ctnts. Fifteen carload producers reported sales of white honey in carload lots at 4 cents to 7 cents. There was just one sale at 7 cents but several at 6 cents. Including the 7 cent sale, the average of the 15 carload producers' sales was 5 2/5 cents a pound. For comparison it would seem fair to take the price of 5 2/5 cents as an average for July 1939.

The U. S. D. A. Production and Marketing Administration for June 16, 1952, mentioned that the bulk of the sales were at 11 cents to 12 cents a pound. We quote, "Prices on honey have shown little change as compared to two weeks ago, although there seems to be a generally firmer undertone to the market as reflected by the higher minimum prices to be paid under the 1952 honey program. Beekeepers's sales f.o.b. shipping point or delivered to near-by bottlers generally range from 9 cents to 12½ cents, with the bulk of the sales at 11 cents to 12 cents a pound." It is probably fair to say that 11½ cents was an average price of white honey in June 1952.

In the July report ten sales of white honey in large lots were listed averaging exactly 11½ cents a pound. If 5 2/5 cents for honey in 1939 is taken for an average and 11½ cents is fair for an average in June and July, 1952, then the price has more than doubled, the increase being about 113 percent.

It would be possible to juggle the figures without stretching a point too much, and make out a better case for honey. It would be possible to juggle them again and show that honey has not fared as well. For example, from the 1939 report, we might leave out of the 15 producers' sales, the one carload sale at the 7 cents price, which was then away above the others. However, to be honest, if the extreme in one direction is left out, so should the extreme in the other direction be left out. We averaged the prices of all fifteen.

Credit should be given the Beekeepers' Federation for the price support program which surely has helped prevent sales of honey at disastrously low prices. Full credit also should be given the American Honey Institute for keeping up the demand for honey, for preventing honey from becoming a luxury, to be dispensed with when the going is hard.

If honey were produced in greater volume, more money would be available for promotion and the industry would be better off. The greater per capita consumption of honey in Canada proves that we, on this side of the line, are nowhere near the saturation point in sales.

From North, East, West, and South

SOUTHERN CALIFORNIA, July 3

Weather: The month of June in Southern California was a very unusual month as far as weather was concerned. There were no hot days and very few what could be called warm days. In fact, the nights and mornings were cold most of the time and heat of some kind was necessary in order to be comfortable. In Los Angeles, June 28th was the coolest June 28th on record, the thermometer reaching a maximum of only 68°.

Condition of Plants: Whereas the grasses are pretty well dried up, the shrubs are still in excellent condition. The wild buckwheat never looked better than at the present time and should produce a good flow of nectar.

Honey Crop: Producers are certainly jubilant over the excellent crop of honey so far. It has been hard for the beekeepers to keep up with their work. In many cases they have taken the filled frames from the supers and replaced the empty frames only to find them filled again in a short time. Of course, that pleases the beekeepers but surely keeps them busy. One large producer was heard to say that there was no difficulty in making honey this year. The great problem was getting help enough to carry on the work as it should be done.

Market: The honey market is in a good healthy condition because so little honey is left from last season. Most of the honey extracted thus far is of a very good grade and that always helps to stimulate the market. Perhaps another reason for a firm market is the fact that people seem to be health conscious these days and are eating the foods that create better health for them. Honey is known to be a perfect sweet and healthful—so seems to be taking the place of sugar more and more. Naturally that will help to strengthen the marketing condition.

Miscellaneous: An interesting article appeared in a recent issue of a Riverside paper in regard to the rainfall in Riverside County for the past 11 years. The year 1951-1952 gave us the wettest season during those years, with an average rainfall of 20 inches. The average for the seven previous years was slightly over seven inches. The normal average rainfall for this part of the country is about 12 inches per year. In the past 70 years there have been seven major drouths including the one during the past few years. The excellent crop of honey being harvested this season is undoubtedly the result of our heavy rains the last year.

When beekeepers are extracting, a lighter grade of honey could be had if they would take the time to remove any frames which show streaks of dark honey. Those frames can be extracted along with less choice honey later on.

Our own Harry Whitcomb received a lot of publicity in the July issue of the "Readers' Digest" in an article called "A Hundred Million Bees for Hire". We say our own Harry because he is a native of Corona—our home town—and his parents are still residents of this community. Well, he and Marie have worked hard and deserve all that they have made. — L. L. Andrews, Corona, Calif.

NORTHERN CALIFORNIA, July 1

Weather: This past month was a bit different from the usual, including some beautiful days, extremely warm periods, and ending up with a cold wave while the central part of the country was sweltering. A couple of very light showers added 0.23 inch to the total rainfall, but did neither good nor harm to the agricultural situation. The total precipitation for the year ending June 30 was 20.67 for Davis. Snow and freezing temperatures were reported for the high Sierras during the past week.

Plant Condition: Spring rains caused a good growth of vegetation and most of the grasses have dried

up on the non-irrigated pastures and hills. This will increase the fire hazard in range lands as well as in forested areas during the summer months. Yellow star thistle, one of the main sources of honey in northern California, and considered by most beekeepers to be a "beneficent weed" of grain fields and pasture lands, looks better this year than for several years past. It has been eliminated from many grain fields by the application of 2,4-D, but a sufficient number of seeds have survived the dry years, and even 2,4-D, to produce a good stand in many areas. Other thistles yielded nectar this spring, sufficient to fill many combs with the greenish-looking nectar. Most of this honey was used in brood rearing, but some surplus remains in the combs. Locally, there has been a fairly good flow from morning glory blossoms, enough to spoil any honey gathered later from alfalfa or star thistle or the clovers unless it is removed before the main honey flow begins.

Manzanita in the mountains yielded abundantly in many areas, according to reports from those having colonies in manzanita territory. It is interesting to see this plant in bloom when snow lies on the ground nearby.

Sage and buckwheat and wild alfalfa have yielded in the southern ranges and still looked good on a recent trip taken by the writer through the Ventura and Santa Barbara areas and in the mountains between them and Bakersfield. The quality is said to be excellent, as it generally is in years of plentiful nectar production.

Condition of Colonies: The last five years has brought a definite change in the beekeeping picture in California and this is apparent in the condition of many colonies this spring and early summer. The demand for colonies for pollination service, coupled with dry years and short honey flows, has caused many beekeepers to fill up all available hives, leaving too few supers for a honey year. Last year much honey was lost for lack of adequate super space and it will happen again this year. Colony strength also is reduced by too much crowding of bees in two-story hives, which reduces the number of available workers for either pollination or for the gathering of nectar and pollen.

On a recent trip I stopped at a "nuc yard" placed where the bees had access to sage, buckwheat, and wild alfalfa. There was a strong flight and during the few minutes we stopped for pictures, one of the nuclei swarmed. It was hard to leave the apiary with a swarm in the air but that was all we could do, for lack of time.

Our colonies will average three and four hive bodies of bees with brood in from ten to fifteen combs. The best of them have two supers of honey ready to come off and all are in excellent condition for a honey flow. Reports of beekeepers indicate excellent nectar conditions in most sections of the state, a better-than-average condition of all nectar and pollen plants. When brood chambers are not crowded, colonies will be in better condition, with a greater reserve in bees and brood for the summer months to come.

Pollination Activities: I have just returned from a visit to the seed alfalfa area in the vicinity of Mettler, Kern County, where Chas. Reed and his Valley Pollination Service is doing an excellent bit of cooperative work. The Pollination Service group includes some 52 or more commercial beekeepers and some 15,000 or more acres of alfalfa. The beekeepers have about completed the moving in of some 45,000 colonies of bees and have almost filled the requirements of the various fields. Fortunately, the fields come into bloom at different periods extending over a month, but even then from 10 to 20 truckloads of bees arrive **each night** and have to be placed in the fields at designated spots. Reed seems to be admirably suited for the task of "riding herd" on this number of colonies, beekeepers, and some 60 or more seed growers, and in keeping most of them happy.

The beekeepers in the south, central, and northern sections are finding the movement of bees tougher this year than in many past years, because they generally have to pick the colonies up out of a honey flow. Some complained about stripping the colonies of surplus honey, putting on a super and then finding the super filled when they went around a few days later to move the colonies. And some can tell you that one runs into grief when one attempts to put on wet supers and then move before the bees have a chance to dry the combs and store the honey.

There has been an increased demand for bees to go into many different kinds of crops, and increased requests are being received about the relationship of honey bees to the production of fruit and seed. In only one instance has there been any objection raised on the part of a grower about the rental of bees for services in the production of alfalfa seed and that objection was based on his opinion that beekeepers had over-sold the idea and were charging too much per colony for the service. As a contrast to this stated opinion, a manager of a large seed cooperative is credited with saying that if a seed grower (in California) doesn't want to rent bees, he can either be content with a reduced yield, or own bees himself, or go out of the seed business.

This year some honey producers are reporting yields of two and three cans per colony thus far, with yields from alfalfa and cotton and possibly blue curls and other sources to come. When beekeepers receive between $5.00 and $10.00 for the rental of colonies, with the average nearer $6.00 than $10.00, why is the charge too high? A beekeeper could not afford to go into the pollination business except for the fact that he can handle more colonies for approximately the same labor cost and because experience has shown that only about two out of five are good honey years.

The Honey Market: Some honey producers apparently haven't heard of the subsidy price on honey or are too anxious to sell to buyers who are already well stocked with honey, and are selling below subsidy levels. The volume of such sales probably is not large, but it creates unrest and confusion not only among beekeepers but also among buyers. In some instances, beekeepers have had difficulty in getting suitable forms to fill out for the PMA loan on honey to tide them over the season when more honey is being offered than can actually be stored or moved by the buyers. Retail prices have been increased somewhat in northern California to meet an increased price at wholesale levels. However, wholesale prices in the Bay Area are still from 40 to 70 cents a case less on the honey in the smaller glass containers and from $1.40 to $2.62 less for 5-pound containers than in the Los Angeles market.—J. E. Eckert, University of California, Davis.

TEXAS, July 7

Weather: Summer temperature lasted throughout June over most of Texas with several areas reporting record high temperatures for the month. After several consecutive months of normal rainfall and a build-up of soil moisture, definite recovery from two years of drouth seemed assured. June rainfall, however, was far short of normal. Locally, only .50 inches was recorded with other sections reporting similar shortage of water. A month ago fields and pastures looked very promising but with deficiency of rainfall, high temperatures, and drying winds during recent weeks, crops are deteriorating under drouth conditions which have prevailed during the past two years.

Bees, Plants, and Honey Crop: In central and east Texas the spring honey crop was above average, thanks to an abundance of spring wild flowers which followed timely rainfall during the spring months. Throughout the blackland area bees gathered considerable surplus honey from marigold (**Gaillardia**). Horsemint in most of its range was more abundant than in several years with colonies averaging from 60 to 100 pounds surplus from this source. At present, mesquite is in bloom and south Texas reports a good flow from this source. It is seldom that mesquite yields a good crop in two consecutive years such as was obtained last year followed by another crop at this time. Some of the best crops of mesquite honey were obtained in dry years as many of the older beekeepers will remember. In the major vetch-growing area, the honey crop from vetch was generally disappointing. In Van Zandt County the highest average of surplus from vetch was reported at 30 pounds. Somewhat higher yields were reported from Wichita and adjoining counties in north Texas. A fair yield from sweet clover was reported from the mid-coastal section and southern portion of the blackland area. In other areas the bloom of sweet clover was cut short by dry weather with the prospect

that the honey crop from sweet clover in Texas will be the shortest in recent years. In spite of high acreage grown to cotton the stand is below average. Nectar yield from cotton was reported from southern portions of Texas. In spite of dry weather cotton has withstood the drouth well, however, rainfall is needed for continued growth and nectar yield.

Market: Honey of the current year's crop is appearing on the retail market at prices that have prevailed during previous months. Comb honey is in especially good demand by bottlers, however, little comb honey has yet appeared on the market.

Miscellaneous: During the past twelve years, sweet clover has been grown in increasing acreage over Texas to the extent that sweet clover has become our leading honey plant and Texas leads other states in seed production, especially of the Hubam variety. Within the past three years, insect pests have become a serious problem in growing sweet clover. In several of our leading counties, the acreage of this crop has been reduced within the past few years. Beekeepers are wondering if sweet clover in Texas is growing the way it has in other states with declining acreage. Wichita County recently formed a local beekeeping association. In this and other counties in north and northwest Texas, beekeeping is expanding and assuming a prominent place in agriculture. Flora Apicola de la America Tropical by Gonzalo S. Ordetx is a valuable contribution to our knowledge of nectar and pollen plants. Among the more than 700 plants discussed, a portion are important in Texas and southern points of other states. — A. H. Alex, College Station, Texas.

MISSOURI, July 2

Conditions: Commencing on Decoration Day and ending on the first day of summer we experienced an old-fashioned white clover honey flow. During this time the weather was hot and dry, just right for the bees to store above an average of good quality clover honey.

For the first time in four years since several farmers planted Ladino clover in the vicinity of four of our apiaries bees worked it extensively and also intensively, so much so that these four yards have produced a third more than the yards that had access to white clover only. Ladino, in this locality, evidently reacts to the same weather conditions as does white clover.

The three summers prior to this were wet and neither white clover nor Ladino yielded any surplus, or very little. This year, with daytime temperatures in the 90's and nighttime temperatures in the upper 70's and lower 80's, both yielded abundantly. The days were clear.

Miscellaneous: For the first time in five years farmers have not mowed or sprayed country roadsides. We are unable to understand this. Before this year, they would get in a big hurry to do this job before the sweet clover would start to bloom. Bees are working the white sweet clover along the roadsides, and a slow flow is on from it. We are not expecting any surplus from it, for here it takes acres of blossoms to produce a surplus.

We were very much interested in Editor Deyell's article "Producing Section Comb Honey" in the May issue.

More comb honey would be produced, I believe, by the smaller beekeepers if they would use extracting combs on each side of the sections. This method can be used for both the tall and square sections. Shallow frames are used for the tall sections, and half-depth frames for the square-section supers. We produce a small amount of section comb honey and have used this method with both size sections for 25 years.

Our chunk honey is produced in shallow frames, using ten frames in each super, eight with foundation, and the outside frames containing built-out comb, and always the bees will commence to build comb in each frame next to the shallow extracting frames, and the super of honey is always capped over fully, whereas with no combs on the outside, the outside combs are rarely capped over when the super should be removed, to prevent travel stain.

The Missouri State Fair will be held August 16 to 24, and we are hoping that more Missouri beekeepers will avail themselves of this very good advertising for our product. We have always found it profitable to exhibit at the Fair in getting extra customers for our honey, plus the premium money, which will more than pay for all expenses involved. — Carl Kalthoff, Lexington, Mo.

MINNESOTA, July 8

Weather: So far the weather this year has had its effect upon the honey crop. Early floods caused by the melting snow, drowned out some colonies and washed away others. This was followed by a dry period, and the rains came just in time to revive the field crops and pastures. In fact, too much rain came in scattered sections of the State, and too much wind, also. Some hives were blown over and soggy ground hampered yard operations with a motor vehicle.

Pasturage: Two very good breaks came to us; first, the warm dry spell allowed our bees to get out and make a nice build-up, and now the abundance of moisture makes luxurious bee pasturage. This is especially noted in the little Dutch clover, with a carpet of white in pastures that some years are short and parched. Sweet clover and various flowers seem to be thriving and came on rushing the season.

Bees: Chas. Hoffman reports an ideal spring build-up, later resulting in excessive swarming. Here again weather played its part—there seem to be no two seasons alike. Bob Ray says, "Our per colony crop prospect is better than normal for this time of year." April and May were good months for the bees and gave them a fine start.

Honey: The outlook today is for a good crop of honey and a better bulk price than we have had for years. However, we remember that only last year we were headed for a big honey crop which cut off short in August. This can happen again. If the crop is big, then one beekeeper thinks he can break even on a 12c bulk price. Another extensive beekeeper says, "I would need 100 percent of parity to make a fair profit." At long last, it looks like the honey producer may get a better price for bulk honey but we do not expect to see him making much over present production cost.

Alfalfa: From reports received Minnesota conditions have not proved too happy with regard to bees for pollination of alfalfa. In wet years there is not enough nectar secretion to entice the bees, and the transportation of hives in and out of location is a lot of work. Too frequently the returns in honey or seed are not encouraging. Also, many beekeepers object to putting their colonies directly in the fields and usually want some grove protection. This year one of the writer's yards is located near a yellow sweet clover field to be harvested for seed. For us that seems like an almost sure thing, for both the beekeeper and farmer. — Bruce Morehouse, Montevideo, Minn.

NORTH DAKOTA, June 24

Weather: Scattered showers through many parts of the state have given a welcome relief to those areas. Some of the boys were remarking that it was so dry that some of the field bees were carrying canteens on the long trips. Don't know about that but it would be an excellent idea to check upon the water supply for the apiaries.

Otherwise than that, the weather has been largely "off and on" weather—when you have your jacket off you wish you had it on, and vice versa.

The exceptionally warm weather in early April pushed everything along at an accelerated pace. Package bees at that time got off to a good start but the following cold weather brought on a wave of superseding that left many colonies queenless or weak. Overwintered colonies which managed to escape the heavy winter loss are doing fine and are able to take advantage of the early yellow clover flow.

Condition of Plants: The early warm weather gave the sweet clover the jump on the weevil so that there is more clover to be seen along the roadside and waste areas than has been observed for the past few years.

Many fields of sweet clover have good thick stands. These fields can be very deceptive to a beeman traveling through with an eye on bee pasturage as most of these fields are either plowed under or cut for forage. The dry weather has caused many farmers to plow under thin clover rather than try for seed. Alfalfa is short and blooming early.

Pollination: More farmers are realizing each year that bees are essential for legume seed production. Many are interested in honey bees for pollination but tradition stands in the way. Great thing that "tradition". It can stand firmly against

storms of bailing-wire ideas or throw a wicked block into progress. In this case it is definitely a block. A common opinion is that farmers have never paid a beeman before to move on their place; in fact, the beeman usually paid them, so why should they pay now? Beemen are reluctant to do pollination work as it is relatively new while honey production is tried and true.

During the winter meeting of the North Dakota Beekeepers' Association, a committee composed of beemen and seed growers was formed to draw up a set of recommendations for alfalfa pollination. The following is the Pollination Committee's recommendations:

1. Pollinating colony should have a minimum of six average frames of brood covered with bees. Two colonies per acre recommended.
2. Farmer and beeman should confer at beginning of bloom to decide if alfalfa should be pollinated or not.
3. Application of insecticides should be applied before bloom or the beekeeper be given 48 hours advance notice before application, if put on after bees are installed on field.
4. Rental rates.

50-59 lbs. of clean seed per acre	40%
60-69 lbs. of clean seed per acre	38%
70-79 lbs. of clean seed per acre	36%
80-89 lbs. of clean seed per acre	34%
90-99 lbs. of clean seed per acre	32%
100-109 lbs. of clean seed per acre	30%
110-119 lbs. of clean seed per acre	28%
120-129 lbs. of clean seed per acre	26%
130-139 lbs. of clean seed per acre	24%
140-149 lbs. of clean seed per acre	22%
150-159 lbs. of clean seed per acre	20%
160-169 lbs. of clean seed per acre	18%
170-179 lbs. of clean seed per acre	16%
180-up lbs. of clean seed per acre	15%

5. If the alfalfa should be cut for hay after pollination agreement has been met, a representative portion of the field should be left for a seed sampling to see if the 50-pound minimum has been attained.
6. Beeman should be notified of date when alfalfa is to be harvested.

Miscellaneous: It is pleasing to note that more aerial sprayers are realizing the importance of honey bees for pollination and are requesting information as to when to spray in order to protect the bees.

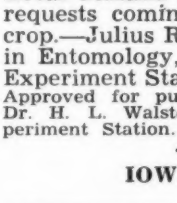
Too bad that the goal of uniform state inspection laws cannot be accomplished more easily. Some of our migratory beemen are certainly hindered by laws that can be used more as "nuisance laws" than regulatory laws as they were intended to be. In some cases it appears that a "legal" certificate is of more value than a truthful one.

Disease Report: So far the disease report from our bee inspector has been quite favorable. Some nosema and sacbrood, a few cases of EFB, and a small amount of AFB have been found.

Honey Market: There is a plentiful supply of honey on the shelves of grocery stores at a steady price. Local demand is fair to strong with requests coming in about the new crop.—Julius R. Anderson, Assistant in Entomology, N. Dak. Agric. Col. Experiment Station. (See page 500.)

Approved for publication June 30, 1952. Dr. H. L. Walster, Director NDAC Experiment Station.

IOWA, July 9



As of this date there are indications that the honey crop of Iowa can equal normal proportions. Reports reaching the office from several sections of the state indicate a flow which is considered very good by beekeepers. There is some opportunity for the extent of the crop to be over-emphasized since the crops of the last five years have been below normal so anything above that of the few years back may be termed a big crop.

The spring conditions were such that colony build-up was rather slow but beekeepers put every effort possible in the development of their colonies to obtain the maximum from whatever flow might develop. The honey flow this year came ahead of normal bloom dates in spite of the retarded spring plant activities. Also, this has been called a white Dutch clover year for this plant has given abundant bloom over much of the state. In some areas there has been a very heavy bloom where bloom has not been known for years. Weather conditions seemed to favor a flow from this plant and the bees did right well in harvesting a goodly portion of the crop from that source.

The acreage of yellow sweet clover has increased considerably but the acreage of white sweet clover has decreased materially, probably due largely to the ravages of the sweet clover weevil. There has been some increase in the acreage of alsike clover and this has been reported to give a good return where it is available.

Rains have occurred at appropriate times and in appropriate amounts to materially extend the

bloom period of all these plants beyond the normal realization. The white Dutch clover is still in bloom and yielding some nectar in early July over a considerable portion of the state. Yellow sweet clover is, at this date, still yielding considerable quantity of nectar, although the plant will soon cease to yield. Where white sweet clover is available, it will undoubtedly yield for a considerable period yet.

The influence of weather upon nectar secretion has been so evident this year under these conditions. Moisture requirements have been highly satisfactory. There have been alternating periods of cool temperatures and extremely high temperatures. This seemed to alternate the flow from white Dutch clover to the sweet clovers.

The value of strong colonies has been clearly demonstrated this year. Unless the colony was strong it did not realize fully from the flows which were available. The value of young queens has been demonstrated very clearly. Increase made by artificial division headed by new queens has produced far beyond overwintered colonies headed by old queens, although of normal age for expectancy of good performance.

Miscellaneous: The possibilities of TV have come first hand. An opportunity was made available to present a TV program over the local station WOI-TV which is in a non-competitive area. It is estimated there are some 95,000 sets in the area and the average listening audience at any time is two percent. A discussion of bees with the use of the observation hive affords a wonderful opportunity to instruct the non-beekeeping public regarding bees. This instruction develops an interest which is always present but cannot develop because of the fear of bees. This interest is in reality a potential consumer interest for honey.

Another appearance has been made over WOW-TV in Omaha where the same reaction was indicated. The viewing public is entranced by the stories which can be told relative to bees and their association with the development of human customs, the story of the bee organization within the colony.

The possibilities of this effort of education are little realized by the public and not fully comprehended by those who are in charge of TV programs. This reaction is the clinching argument in favor of visual education. An opportunity is afforded here for organizations of the state or local level to make an effort to develop contacts with TV stations on an educational basis. Beekeepers are urged to investigate the possibilities in their locality for the use of bees as an educational program or in conjunction with allied programs. — F. B. Paddock, Ames, Iowa.

MARYLAND, July 5

Weather: Spring was early and wet in this mountain area. Since our February report, notes on early brood rearing over the state show egg-laying as of Jan. 20, and patches of brood beginning in February. Latest issue of THE POLLEN BASKET, Vol. 17, No. 1, February 1952, elaborates further on this subject and overthrows a number of popular misconceptions concerning wintering, as explained by Dr. George Abrams, State Apiculturist, University of Maryland, College Park. General good wintering weather conditions over the whole state brought colonies through in fine shape. The only losses were from queenless hives.

Scale hive values and weather conditions go together, and any records of one are linked with the other. Scale hive here in the Blue Ridge showed 15 frames of brood by April 20; 20 on May 4. Early and heavy rains influenced early nectar sources, maple, willow, and elm; and during the infrequent warm and dry spells of March and April bees slowly gained in stores. During the wetness of middle May and the dryness of early June, bees probably stored away the major crop.

Honey Plants: Many cooperating beekeepers over the state are helping Dr. Abrams compile a record of nectar resources for every county and section. When tabulated at the end of the 1952 season these forms should produce a true and accurate picture of a valuable but hitherto unmeasured state asset and probably will be the first statistical study of any major geographical nectar

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area in the world. We are required to keep a record of first bloom, height of bloom, end of bloom and location of a list of 21 major nectar bearing plants of Maryland, beginning with alder, maple, willow, and dandelion in spring, and running through the season ending with lima bean, goldenrod, and aster in the fall. In addition, other good sources of nectar peculiar to the various state honey regions are to be recorded.

Honey Flows: At present it is too early to know fully the results of the flow in the four state areas, but the figures below from the 1951 flows will probably be far exceeded this year. Maryland is divided honeywise into far western Mountain Region, which averaged 53 to 110 lbs. per colony; the Cumberland and Middletown Valleys Region (includes Blue Ridge Mountains, my section) 80 to 100 lbs. average; Piedmont or Tuliptree Region, average 70 lbs., chiefly off locust, as bees did not work tuliptree; and from Eastern Shore Region, east side of Chesapeake Bay, from 20 to 40 lbs., with the lima bean flow some 10 lbs. lower than other years.

Here our heaviest flows, which some think of as the annual yield, are from locust, tuliptree, berries, and sumac; sometimes only one or two, but never all. Clover may or may not be another big yielder, but not many can count on it. Fall flows can be heavy, and a few beekeepers may make some surplus.

We may be losing out on our locust bloom in the state. For some time now these trees have not been doing well. During the last two years, for example, take several trees in a group, say, in a meadow. Some will bloom well, but some do not bloom at all, or have only a few blooms. Sometime back we could count on a steady, annual statewide bloom, lasting from one to two weeks, depending on heavy rains, and always profuse. In addition, since there was no tuliptree flow in the spring of 1951, it is now feared these trees likewise may be suffering from disease. Nevertheless, the present flow has been excellent in this section.

The flows for far Western Maryland so far have been good and continuing, while that for the Eastern Shore does not end until after lima bean flow.

Miscellaneous: The new short course in beekeeping at the University, ten weeks at one hour per week, was given by Dr. Abrams, during the winter of 1951-1952. Started as an innovation, it nevertheless turned out to be a course well attended by many local beginners and old hands, too, and so will be repeated.

Big Show: March 6 to 12, the Maryland State Beekeepers' Association, President Harold L. Kelly of Silver Spring, put over an educational exhibit on honey use and pollination at the annual Spring Flower and Garden Show at the National Guard Armory, Washington, D. C., where 100,000 people from all over the U. S. and foreign countries, come to look at flowers and exclaim over Maryland honey. The exhibit created a tremendous amount of favorable comment from the management down to the kids with their fingers in the golden stream. Furthermore, the Association let anyone buy honey who was inclined, and somehow or other over $900 worth of the liquid was carried off by eager and delighted purchasers, and was thus sold at considerable profit to the Association treasury. Many, many demands for buckwheat, comb sections, and other kinds of Maryland honey were unfilled because of lack of time beforehand in which to stock them. Dark tulip poplar sold as well as clover, and no one seemed to mind paying 50 cents for a 1-pound jar. This is real, productive-of-results honey sales promotion with a large capital P.

Washington, D. C. Notes: Bee business in and around the Nation's Capitol is important. Some locust trees bloomed and all tulip trees, but bees lost much nectar because of too much cloudy, cool weather at height of bloom. Four good days at this period would have made a bumper crop. A scale hive recorded 16½ pounds on one day, however.

Total crop, nevertheless, to date seems satisfactory, with some hives having 100 to 150 pounds of surplus on as of June 25; others no more than 50 pounds, and an average estimated yield, after Congress adjourns, of 60 to 75 pounds, all dark honey, excellent for both political conventions.

Excessive swarming affected the total crop. It was brought on by so much cloudy weather that it was impossible to work the bees every ten days to control swarming. Af-

ter being confined over a week they would pour forth the first fair day, and on that day the beekeeper ——in this case, President Kelly, Elder Statesman of Maryland Beekeepers, who has supplied the information for these Washington notes, and keeps several apiaries in the vicinity of the Capitol city—would, unfortunately, have to be at his government office.

Honey Markets: Of course, some of last year's crop is still on hand which is discouraging, and many are concerned over the time and travel it takes to sell a crop, often at too low a figure. We are not speaking now of a depressed price or such figures as the government prices on surplus, but one over which a beekeeper can take some satisfaction through knowing that his hours of labor and investment have not been in vain.

In our family we give honey for Christmas presents, and at other times, too. All such gifts represent cash, of course, and since honey is better than cash, we set aside a lot of 10-pound cans for just such gifts. These are marked up on the record as sales. This practice is followed by others here, also. It is very convenient, too. You haven't had to shop, or drive long distances to stores. You solder the can, label, and tag it, no wrapping required, and the Post Office delivers. This system could be advertised to customers for Christmas giving, the beekeeper doing the mailing. But get it over and done by December first and no later; you don't want tin cans flung around in the regular Christmas mails!—S. W. Edwards, Myersville, Maryland.

NEW YORK, July 9

Crop Conditions: As the clover flow draws more or less to a close and the basswood flow begins, it is a question in the minds of most beekeepers what the crop will be. Few have reported 100 pounds to the colony, others think that in the poorer sections the yield may not be over 30 to 40 pounds on an average. One beekeeper reported on the 5th of July that his colonies of bees were five stories high and had plenty of honey in them, so that means 100 pounds or over on the light flow. Thus one would assume from this build-up that the white clover and basswood flow together would result in a little better than normal crop. It may beat the 1951 average.

Markets: There is no established market on honey, unless one can state that the new government support price is in fact the market which some of us doubt. One fact does stand out clearly in the market on honey today, that regardless of the crop size, honey will be worth more on the 1952 crop, and that will go for all the grades. Thus, if the crop in the U. S. A. is less than that in 1951 we do look for prices on good clover honey, or honey of like quality, to bring near support price. If the crop is more, we look for the bulk of it to sell for some less than support prices, but with some advance over the 1951 prices. If one reads over the report of the CCC, it becomes quite clear that if the U. S. Government buys the honey, no beekeeper can receive the full support price. As it states in amendment No. 1,524,271, one half cent per pound deduction will be made and this does not include other deductions that may enter into this matter. Also, if honey is held for government account until 1953 it would seem that the beekeeper must be held liable for any fermentation that is likely to occur. The CCC report is not exactly clear as to all points, and one expects that to be, as reports of this nature the average person is not expected to understand. The point I am trying to establish is that at a certain support price on honey when it is sold to the government, no beekeeper can get that full support price and will receive quite a bit less.

To pay expenses of producing honey in these times, 15 cents per pound would be nearer the price it should sell for. But that is out of the question for the time being. If all of us can have some relief from the burden of high prices for all the materials that have to be bought, and the high cost of labor, then present prices might show a profit. If you have bees, regardless of the size of your holdings, keep them. Beekeeping is coming into its own. When the public can see it is cheaper to buy honey in 60-pound cans for $12.00 per can than it is to go to a doctor and pay $5.00 to $10.00 per visit in order to keep

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in health, then and then only will honey come into its own.

Hold on. The morning light is breaking and soon the shadows will flee away.—Roscoe F. Wixson, Dundee, N. Y.

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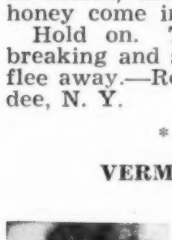
VERMONT, July 9



Weather: Early spring in Vermont was warm, pleasant and dry—too dry. However, considerable rain and cool weather later kept things growing in good condition. Now it has turned dry again, and we keep hoping for rain to freshen the honey plants that are starting to get dry.

Honey Plants: This year, for the first time in many years, Champlain Valley is blessed with the sight of pasture clover. It's certainly good to see the white blossoms on the fertilized pastures. Where pastures are not fertilized, there is nothing much but bare ground, paint brush, and wire grass. Alsike clover is steadily losing ground. Whether it is wintering, insect injury, or disease that is responsible, I don't know. It is true the life of alfalfa here is pretty short now, when some years ago it held out for quite awhile.

The most pleasant sight of all is the large fields of bird'sfoot trefoil with its solid mass of golden blossoms. Not only its sight, but the sweet, pansy-like fragrance indicates some of its gold is not only in the color of its blossoms, but in the fine honey it produces. As a pasture and hay crop, it is also real gold to the dairymen. There is one field of 40 acres which was planted to clear trefoil last year. This year, there is a thick mat of fine stems and leaves two feet deep that no doubt would cut four tons to the acre. However, I believe it is being left for seed, and with seed worth $1.25 a pound or more and a possibility of 100 pounds to the acre or more, the owner shouldn't have any trouble making a day's pay. The nice thing about trefoil is that the hay is still good even after it goes to seed. After the seed is thrashed out, the remaining hay makes excellent feed. There is a tremendous variation in trefoil. There is the narrow leaf, broad leaf, and varieties that start blooming the first week in June and others that don't bloom heavily until early July. There is still much to be learned about this remarkable plant and which varieties suit certain uses and locations best. A variety adaptable to a location will, like nothing else, make it a land flowing with milk and honey.

Honey Crop: I hope some day I can learn a little about keeping bees. After 30 years, I'm still making boners that cost a lot of honey. It seems by now I should learn to put on supers, but this summer found us with a honey flow and not enough supers on the hives. In early June, after dandelion, bees were awful short of honey in some cases. By the time we finished clipping queens and feeding, the honey flow started with a bang. I haven't as yet mastered the art of supering 800 colonies of bees in one day, so by the time we got around, many colonies were really in bad need of supers. All supers are on now and extracting started to give them more room if needed, depending on the rain. Today its cloudy and windy and looks like rain. But so far, no rain.

Miscellaneous: Saturday, August 23rd, Vermont beekeepers will meet in North Thetford, Vermont, at the home of Edwin Roberts. We are always glad to have beekeepers visit us.—Charles Mraz, Sec., Vermont Beekeepers' Association.

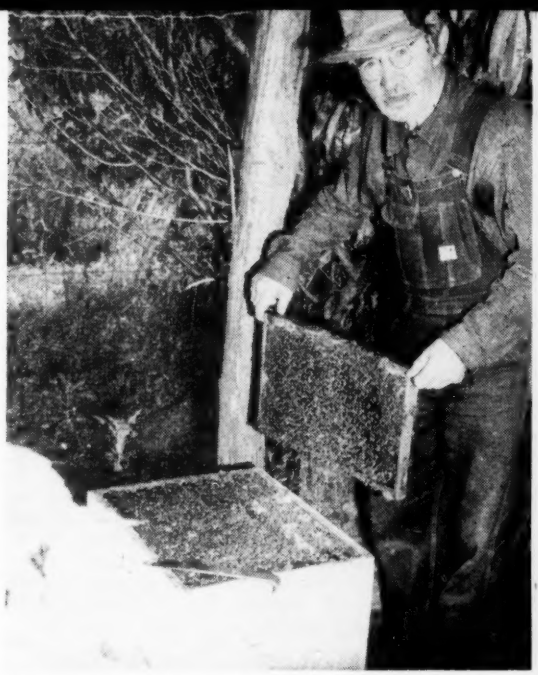
Clifford Muth Passes On

Just as we go to press word comes announcing the death of Clifford Muth of Cincinnati, on July 18. Mr. Muth succeeded his father as president of the Fred W. Muth Co. He suffered a heart attack a few years ago and from this apparently he had not fully recovered. The Muth Co. has advertised in Gleanings for many years.

A 60-Year Student of Beekeeping

By Byron Phillips, Ames, Iowa

"A great problem faces the beekeeper in America today," says W. H. (Bill) Hailey, of Osceola, Iowa, "and if we are to keep our bee population up, this problem must be dealt with carefully." The problem Hailey refers to is the threat of new insect sprays on our honey-bee populations and on the red-clover crop.



Learning the tricks of keeping bees has been a lifetime job for W. H. (Bill) Hailey, of Osceola, Iowa. Bill has been working with bees for 60 years and says he still has a lot to learn. Hailey says "The new insect sprays are creating the greatest threat he has ever seen to our honey-bee populations."

Hailey is beginning his 60th year as a Southern Iowa beekeeper. He began working with bees when he was eight years old—aiding his father hunt and saw up bee trees. After working and learning beekeeping for over half a century, Hailey keeps about half a dozen swarms of bees and uses much of his spare time helping his friends solve their problems in beekeeping.

The Osceola man claims that insect sprays are one of the greatest threats he has ever seen to the apiary business. The new insect sprays on the market today will kill honey bees if the sprays are applied in strong enough dosages to kill the common insects.

In order to correct the situation and protect the honey bee, Hailey says the sprays must be applied to legumes before they come into bloom. By spraying at this time, the danger will be eliminated because the bees will be around the crop only while it is blooming and when they can collect nectar.

Bill says there is another side of the story which is of great interest to the farmer, and this is safeguarding the red-clover crop. If the yield of red clover is to be maintained, the honey bee must be protected. Hailey claims that at one time this was not true because there were sufficient numbers of bumblebees to carry on red-clover pollination. This situation has changed now, for extensive cultivation practices have diminished the number of bumblebees.

Bill warns that the apiarist is wise to wear a hat when around the bees, but other equipment such as the net around the face and gloves is not needed. "The main thing to remember is to work smoothly and not jar the hive. You want to work with the bees often, and that way you can get used to handling them so that you get a lot done in a short time." Hailey says that at times he thinks the bees almost get to know the person who is working with them. Actually, though, it is just the other way around, he says, and that is why they don't bother you, because you don't bother them.

Hailey's favorite tool for working with a hive, is an old file. He finds the pointed handle on the file most useful in dismantling the hive and he can work smoothly with it.

At the present time Hailey's bees are of the Caucasian variety. He says he likes this variety because of its ability to collect nectar from red clover. Hailey has kept the Caucasian bees for the past 18 years.

To keep ants from bothering his beehives, Hailey uses oil and salt. He pours the oil around the outside of the hive on the ground to form a complete circle. As for the salt, he places it in the hive by sprinkling it over the bottom of the hive and around over the sections. Bill says the salt will not harm the honey, but will discourage the ants.

Asked & Answered

Bees Do Not Work in Super

Question: On April 24th I received three pounds of bees with queen. Up until this time it seems that the queen is doing all right but the bees refuse to work in the super I gave them. Could you give me any information as to why they refuse to work in it.—Clyde F. Gibson, Pa.

Answer: It is difficult for us to say just why bees are not working in your supers. Ordinarily, when there is a good honey flow on and when colonies are populous in bees, surplus honey will be stored. Occasionally, something happens to the queen. If she slows down on her laying the bees will put honey in the brood chamber instead of in the supers. It pays to check colonies periodically. If a queen is failing, she should be replaced with a young laying queen.

Correct Bee Space Essential

Question: What is the advantage of spacing frames in the bottom of the bee hive? I just shove all of my frames up together in the center and leave a small space on each side as I don't take any honey out of the bottom of the hive. Do you think I should space my frames?—Robert L. Akers, Ky.

Answer: It is necessary to have brood combs properly spaced in the brood chamber so that worker bees, also the queen, can pass between the combs, and so that the queen may be able to lay eggs in the cells of the combs. We recommend having 10 frames in standard 10-frame hives. The end bars of the frames are 1⅜ inch in width and are so constructed that the bottom portions of the end bars are less than 1 inch wide—15/16 inch, to be exact. This spacing also makes it possible to remove frames containing combs, when the colony is examined. The space above the top bars of the frames should be ¼ inch so that when a super or the cover is put on, bees are not killed. The minimum bee space is 3/16 inch and if the space is less than this the bees will close it with propolis. The maximum is 6/16 inch and if the space is more than this the bees will fill the space with burr or brace comb.

Swarm Underneath a Hive of Bees

Question: Last week I discovered a colony of bees underneath the hive busy having made a large amount of honey which is attached to the bottom of the hive and extending to the ground. I am at a loss to know how to get the honey or save the bees. The hive above the bees is a busy colony but I can not get to either of them to examine the combs. —Eunice W. Mann, Md.

Answer: It is somewhat unusual to have a swarm of bees occupy the space beneath a hive of bees. Colonies have been known to build combs underneath the alighting board of their hives during a heavy honey flow, when comb space within the hive became scarce. We assume, however, that your hive of bees are not crowded for comb space and that the bees beneath it constitute a separate swarm of bees. One way to cope with this situation would be to set the hive onto a new stand, 6 or 8 feet away and place a new hive containing frames with full sheets of foundation directly back of the swarm on the ground. You could smoke the bees out of the combs into the hive. But if the swarm has combs containing brood and honey, these pieces of brood could be tied into empty brood frames. To do this, cut the combs containing the brood to a size that will fit a standard frame, then insert the pieces into the frames and tie them in with strings running lengthwise and crosswise of the frames in order to hold the brood in place until it is set in the hive. The bees will fasten the comb to the frame in a very short time. If you can get most of the bees and the queen into the new hive, the remainder of the bees will enter the hive readily.

Dividing a Hive of Bees

Question: I started this spring with two hives and set up another one three weeks ago They stayed and are building new combs and seem happy enough. What I am trying to figure out is, have I got the old queen in the new hive? I thought so at the time but can't find her when I inspect the hive.—Mrs. Geo. League, Ills.

Answer: It seems apparent that in starting another hive of bees in your apiary, you took a brood chamber or super containing combs of honey and brood from one of your hives and set it on a bottom board near by and gave the hive a cover. This is one way to make increase in an apiary and it works quite well when there is a honey flow on. Of course, most of the old bees will return from the hive on the new location to the parent hive. If the hive you started on the new stand has the old queen, you should find eggs and larvae in the cells of the combs. If you do not find eggs and larvae, but queen cells, you may

know that the old queen is in the hive on the old stand. In due time, after a queen has emerged from one of the queen cells and mated, you should have a laying queen in the hive that was queenless. In 21 days from the time you started this new colony you should have a laying queen. To find eggs in the cells you should hold the comb in such a manner that the rays of the sun shine on the bottoms of the cells.

Cross Bees and Killing Colonies in the Fall

Question: In the last few days when I have tried to open my hives the bees buzz up and are extremely touchy. I had to wear bee gloves and still they stung through these. They did this without the least provocation as I opened them up when there was no wind and it was bright and sunny. I have eight hives on my place and they are all strong. I would like to kill off all but one or two of my hives and take all their honey. What is the best way to do this without hurting the honey and without being too expensive a process? —Robert M. Lewis, N. Y.

Answer: Regarding your bees being extremely touchy, this is not uncommon. We have had similar experiences in some of our apiaries. One day the bees will be gentle and easy to handle; during the next they are cross and hard to handle. The weather or atmosphere must have something to do with the temperament of bees. However, generally speaking, when a good flow is on, bees are gentle and sometimes they can be operated without using any smoke or bee veil. If you have a cross strain of bees you should requeen from stock known to be gentle. Should you decide to do away with a few colonies this fall, wintering only two of them, the bees can be destroyed by using Cyanogas. This may be obtained at any drug store in small cans. To kill a colony of bees, place a tablespoon of Cyanogas powder on a stiff cardboard at the entrance of the hive, then push it into the entrance. The gas being lighter than air travels upward and kills all of the bees instantly. This is a powerful chemical and must be used with extreme care. Do not inhale any of the fumes. Killing bees should be done late in the fall when there is practically no brood in the hives, about the first week in November. Cyanogas, if it does not come in contact with the combs of honey, will not make it unfit for human consumption. After the bees have died, the combs should be aired thoroughly. It seems too bad to kill hives of bees when they are needed so badly for pollination. Possibly you can sell them.

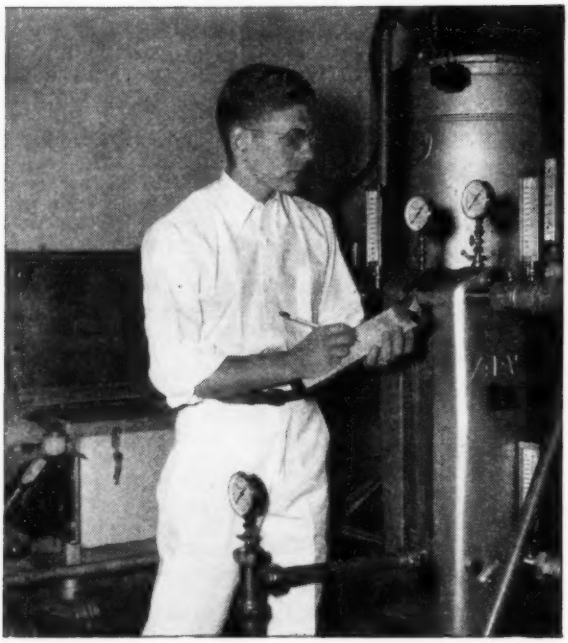
Bees Put Honey in Jars

By Kenneth Oldham, Hanover, N. J.

During a good flow, when strong colonies are crowded for comb space, bees will store combs of honey in jars as shown here. We assume the jars were covered with an empty super or box, but the writer does not say so.

I found two-queens in my three colonies after a sudden honey flow following the major flow in June and July. So finding my two queens laying heavily and the new workers carrying in much fresh nectar, I was caught with all frames filled with honey. I drilled large holes in ¼ inch plyboard so glass pint jars would fit on top. Thus I obtain some "honey-in-the-jar" type of surplus honey.

Honey of an Idea



For the first time honey can be pasteurized efficiently and economically without damage to flavor and color as a result of a new flash heating system developed at the Cornell Agricultural Experiment Station. The new equipment exposes a thin layer of honey to an effective heating area that is 2000 times larger than the conventional two-inch tubular type heater, and as a result permits more rapid heating and cooling. According to Herbert R. Pallesen, research technician who is shown recording the results of his development, this completely automatic plate method costs 50 per cent less than the standard machines. It occupies only 20 percent of the space required for a 30-minute arrangement.—New York State College of Agriculture, Ithaca.

A New System of Beekeeping

By Allen Latham, Norwichtown, Conn.

Three or four years ago I gave away my honey extractor to one of my grandsons, and I planned a different method of extracting honey. It was getting old and it was hard to handle full-depth supers of honey. I planned to use shallow supers almost altogether. Instead of using frames with full combs I furnished only starters on the topbars.

The shallow supers were brought in and to extract the honey I had a strainer made of heavy wire with holes ⅞ of an inch square. This strainer was placed over the big can into which uncapping was done. The shallow supers were held over the strainer and the combs were cut out slicing base, ends, and the tops at an angle. This left a starter on the topbar. The frames were allowed to drain over another can. Many supers had combs with more than one kind of honey and if I desired to save out any special honey that was cut out over a five-gallon can with the top cut off. If there were small patches of dark and inferior honey it was cut off into another can.

One should have two uncapping cans so that when one is full another can be used, allowing the first to drain out and run into cans. I have a small hand extractor and

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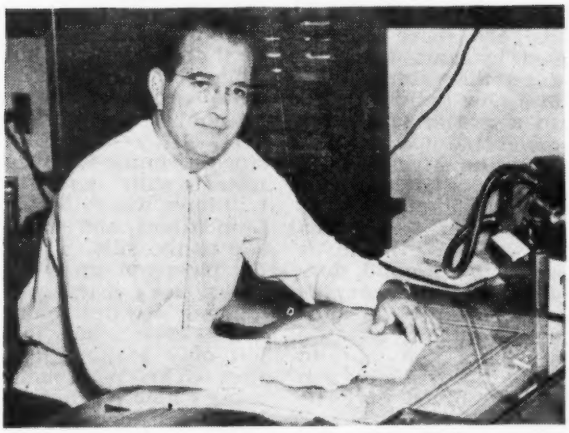
Stephen C. Parks Passes On



Stephan C. Parks at his office desk.

We were shocked to learn of the untimely death of "Steve" Parks on June 27, at his home in Watertown, Wisconsin. He was a son of the late Lewis W. Parks, who died January 21, of this year.

"Steve", as he was called by a host of friends, was sales manager and assistant general manager of the G. B. Lewis Company. He was a veteran of World War II, serving from 1941-'45 as major in the U. S. Army Air Force in Europe.

Mr. Parks attended Watertown High School, Laurence College, and the University of Wisconsin. He was a valued board member of the American Honey Institute and had recently been serving on the Executive Committee.

He had not been known to be ill and appeared in the best of health the day prior to his being taken. Our industry can ill afford to loose such a young man, with such ability and promise. He was only 37 years of age.

Surviving are his wife, his mother, two sons, and one sister.

(Continued from previous page)

the wax after the honey has drained is put into the small extractor and more honey is run out.

Only one super is cut out at a time. With a wooden paddle the combs were crushed through the strainer and then another super would be emptied. If I were younger, knowing now my success in the new method, I would adopt the new method. I have followed this new method for three years now and more money was the result.

For every 25 to 30 pounds of honey there would be one pound of wax. Although my bee business had been much reduced I obtained so much wax that I took in nearly 100 pounds of wax and was paid 58 cents per pound for the wax was virgin wax of the highest quality.

Many beekeepers think that furnishing the bees with drawn combs saves them from the cost of building new combs. Let us consider for a moment what really happens. When drawn combs are used the bees will make a lot of virgin wax much of which will be used on the old combs and a lot of it will be used to wax the topbars and bridge the topbars across and build a lot of burr combs in various parts of the hive.

I may be in error but I have a belief that bees building comb in empty supers seem less likely to get the swarm fever.

Last fall I did some testing of old combs and new. I found that old extracting combs had gained two or so ounces of wax, the comb being attached to the topbar with a lot of added wax. I weighed combs of nearly new wax and those that had been used for 30 years or so and there was about two ounces difference. Bees seem bound to make new wax whether it is needed or not. It is their nature.

A Control for Ants and Termites that Destroy Bottom Boards

By R. E. Newell, Medway, Mass.

Perhaps there are more bottom boards destroyed by ants and termites (white ants) than rot. These insects can ruin a new bottom board or any wood in a matter of weeks, whether it is well painted or not. We all know that the hives should be placed on bricks or cement blocks, but where the practice of tipping the hives over backwards for examination is used, the hives should be close to the ground during the honey season. Beekeepers who move bees constantly in outyards, may sometimes find it more convenient to place the bottom board directly on the ground. Later in the fall the hives may be raised off the ground.

Ants will chew holes through bottom boards to gain entrance to the source of honey, and may "honeycomb" the new wood in a matter of weeks. These insects are of many varieties, varying in size and color from small red ants to very large black fellows. The large black ones appear to be the strongest, although some of the middle-sized red ants can be great fighters. Then there are the very small black kinds that lay their eggs in the cracks of the cover and on the inner cover. These kinds can be very annoying, and cause trouble. Bees bothered by ants must be constantly on guard against them, for powerful ant colonies can destroy a colony of bees. This means that such colonies are ready for a fight at any time, and may be very ugly, when opened by the beekeeper.

Termites or white ants appear to require moisture to assist them in eating wood and coat the bottom boards with mud to make the wood moist. It is not unusual for termites to eat the inside of the boards of a bottom board in a very short time, so that the entire bottom falls out when the hives are moved. This is not pleasant if the beekeeper fails to note their work when moving bees. There is also the danger of storing unused bottom boards infested with termites in wooden buildings where they may enter the foundations and cause much damage to the sills.

I have put up with ants and termites for years, and have been obliged to put blocks under the hives, even when they were to be left only a short time in the location. This past summer we were using Chlor Kil 5 dust, made by the Niagara Chemical Division, Middleport, N. Y., between the rows of nursery stock to kill white grubs, and I took a handful of the dust and spread it under the bottom of a colony of bees that was having a struggle with ants. The next day I was amazed at the result. The ants were all dead, and the colony which normally had a strong guard at the entrance, had very few bees on guard and were working without interruption. Several other colonies in this yard were being bothered by ants, so I dusted Chlor Kil 5 dust under every hive, with equally fine results. Encouraged by the results, I now carry a pound of the dust in the truck at all times.

Chlor Kil 5 dust should not be dusted where the bees will get into it for it must be remembered that bees and ants are closely related. A chemical that will kill ants will also kill bees. There is no danger, however, if it is placed under the bottom board and the bottom board is again placed over it. I have had equally good results using the dust as a control for termites.

Opossums Again

Since the appearance of the article by R. E. Lyons, Collins, N. Y., in the June Gleanings about opossums bothering bees, we have received quite a number of letters from beekeepers over the country. It would appear that the opossum may be more guilty than the skunk. Excerpts from three letters follow:

I have seen 'possums eating bees as they drop on the alighting boards, and have also caught them in traps at hive entrances. They work on bees both day and night. — F. D. Bowers, Youngsville, Pa.

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Mr. Lyons may be sure that opossums eat bees. I was having trouble like his and caught three in small steel traps in my back yard last year.

It is really interesting to read experiences of those in different parts of the U. S. as to their troubles from animals and sometimes the two-footed animals give trouble too. Recently I had a nice large colony removed from my yard of ten. No one saw the party move it nor saw any one in the yard and there are plenty of people close by. — J. T. Harrison, Corpus Christi, Texas.

In our territory opossums will bother bees by knocking at the front door at night, and when the bees see what is causing the alarm the trouble maker will catch them and chew them like a person will chew tobacco. We lost two hives of bees two years ago. About the best remedy to offer is to bait a steel trap and hope that the game warden will not catch you. — Henry E. Puchta, Washington, Mo.

"It's the Rheumatis' "

By Weston H. Jeffers, Florence, Mass.

Some 50 years ago, when I was a small boy, I recall a neighbor driving by at intervals with horse and wagon, stopping sometimes for a chat and complaining of the dampness affecting his rheumatis'. But there was another neighbor, a beekeeper, to whose home I went frequently to help, or to hinder, in my boyish way. One day, I well remember his stopping suddenly, looking at me and then saying out loud to himself, as it were, "You never heard of a beekeeper having rheumatism, did you? I never did!" I have always remembered his remark and have never run across a case to alter the opinion expressed by him. In late years, I have seen articles in support of his theory, even though the disease is now known under the new-fangled name of arthritis, stemming from a variety of causes. But with me, my notion still holds that I may have something worse, but I am not likely to have arthritis because I have the hobby of beekeeping. In fact, I even went so far as to suggest by letter to a brother-in-law that he combat his arthritic condition by keeping bees. Thus far, I have not heard from him in the matter. Perhaps he thinks the cure worse than the bite. But I don't, because I like bees.

Appeal for Back Numbers of Gleanings in Bee Culture

The Apis Club Library was incorporated in the Bee Research Association Library at the beginning of this year, and we want to make this international lending library as complete as possible. We are very anxious to complete our set of **Gleanings in Bee Culture.** Can any reader help by giving us some of the following parts which are missing from our set?

All volumes up to 35 (1907) inclusive. Vol. 37 Nos. 6, 11, 24; Vol. 38 Nos. 1 to 5, 8, 16, 17, 20 to 23; Vol. 39 Nos. 1 to 24; Vol. 40 Nos. 1 to 6, 13 to 24; Vol. 43 Nos. 2, 4, 10, 11, 17 to 21; Vol. 44 Nos. 14, 16, 17, 19, 24; Vol 45 Nos. 3, 7, 11, 12; Vol. 46 No. 3; Vol. 47 Nos. 3, 6, 7; Vol. 68 No. 11; Vol. 69 Nos. 2, 4, 6; Vol. 71 No. 11; Vol. 72 Nos. 7, 8.

At the same time we should be most grateful for gifts or bequests of books, pamphlets, periodicals, or other publications on bees and beekeeping whether new or old, and in any language. Please send whatever you can spare to Dr. Eva Crane, Bee Research Association, 55 Newland Park, Hull, Yorks., England. If you would like to know more about the Bee Research Association (which also publishes the international beekeeping journal **Bee World**) before deciding to part with your books, she will be glad to send you full details.

Just News

The Middlesex County Beekeepers' Association (Mass.) will hold its next meeting at the summer home and apiaries of member James Delory at Groton, Mass., on August 23rd, one week earlier than usual so that it will not conflict with the Labor Day weekend. Beekeepers in the area are invited to attend and hear the plans for our tie-in with the National HONEY WEEK, Oct. 26th through Nov. 2. At our last meeting we were addressed by Harry W. Watling, officer in charge of this tie-in through the U.S.D.A. Food Distribution Branch of the PMA. At this meeting tickets will be available for the CLUB HIVE which is to be given to some member at the September meeting. This hive, as you will remember, was started in April at the Waltham Field Station with a package and a new standard hive and now consists of a two full body colony and is about ready for a one-half super. —John H. Furber, Sec.-Treas.

* * * * *

The Eastern Branch of Tenn. State Beekeepers' Association will hold its annual meeting on August 1, (Friday) at the yard of Dr. R. W. Smith, Morrell's Springs, one mile southwest of Newport, Tenn. There will be an all-day meeting with dinner on the grounds. All beekeepers are invited. We plan on having good speakers and discussions on beekeeping. Prizes for attendance.—W. D. Reams, Sec.

* * * * *

The **Berks County Beekeepers' Association** will hold its summer meeting and picnic on Saturday, Aug. 9th, at 2.00 P. M., at the packing house of the Ontelaunee Orchards, one-half mile below Leesport. E. J. Anderson and W. W. Clarke from State College will be present, as will also Harry B. Kirk, Chief Bee Inspector from Harrisburg. This year there will be amplifiers. There will be election of officers, fine speaking, games, and plenty of refreshments (including that delicious honey ice-cream). —Henry F. Phillips, Sec.-Treas.

* * * * *

The **Cook-DuPage Beekeepers' Association** will hold its August meeting at LeRoy Stockdale's yard on Sunday August 17, at 123rd Street just east of the Wabash R.R. Bridge, Palos Park, Ill. Look for the Johnson Lumber Co., sign. There will be interesting reports on the state meeting held at Elgin. Mr. Stockdale has been giving the Girl Scouts instructions in beekeeping, and they will be invited to the meeting. Bring table service and something for potluck. Coffee will be served.—Roy Westley, Sec.

* * * * *

The **Lorain County (Ohio) Beekeepers' Association** met for their annual summer meeting and picnic at the Wellington Fair Grounds on Sunday, June 29. The Medina County Association decided to give up their June meeting to join with the Lorain County group. Quite a number of beekeepers from other counties were present, bringing the total attendance to over 150. Chas. A. Reese, Extension Apiarist, and Seymour Bailey, State Bee Inspector, were the main speakers. Harry Vandenberg, President of the Association, and Carl Deeds of the County Farm Bureau handled the meeting creditably.

* * * * *

J. R. Anderson, State College Experiment Station, Fargo, North Dakota, was deputy bee inspector actively engaged in regulatory work for two summers in North Dakota and took his M. S. degree with a thesis title of "The Influence of Training Upon the Visitations of Honey Bees to Alfalfa Flowers". After more than a year's experience as Veterans' Instructor at Findley, North Dakota, he has been appointed Assisstant in Entomology to replace R. L. Post who is acting head of the department in the absence of Dr. Alex Munro now in Bolivia.

* * * * *

The **Westchester County Beekeepers' Association** will hold its regular monthly meeting at 2:30 P.M., August 17, at the home of A. F. Roth, 146 Oak St., Port Chester, N. Y. A good speaker is expected. Come and see some of Al's super honey hustlers. Anyone interested in bees is welcome. Refreshments will be served.—Carlton E. Slater, Pub.

* * * * *

The **Vermont Beekeepers' Picnic-Meeting** will be held Saturday, August 23rd, 1952, starting at 10 A.M. The location of the meeting is the residence of Edwin Roberts in North

Thetford, Vermont; about a third of a mile south of North Thetford, turn west off route 5 about one-third mile. Signs will give directions. Our guest speaker for the day will be Edwin J. Anderson from the Pennsylvania State College. Mr. Anderson has had a great deal of experience with beekeeping in its many phases and will give an informative and interesting talk. We hope all Vermont beekeepers and friends will come to welcome our guest from Pennsylvania as well as all our beekeeper friends from neighboring states. Everyone is advised to bring his picnic lunch and family.—Charles Mraz, Sec.

* * * * *

The **Beekeeping Short Course** held at State College, Pa., August 18 to 22, mentioned in previous issues, covers practically every phase of beekeeping. The tentative program is as follows:

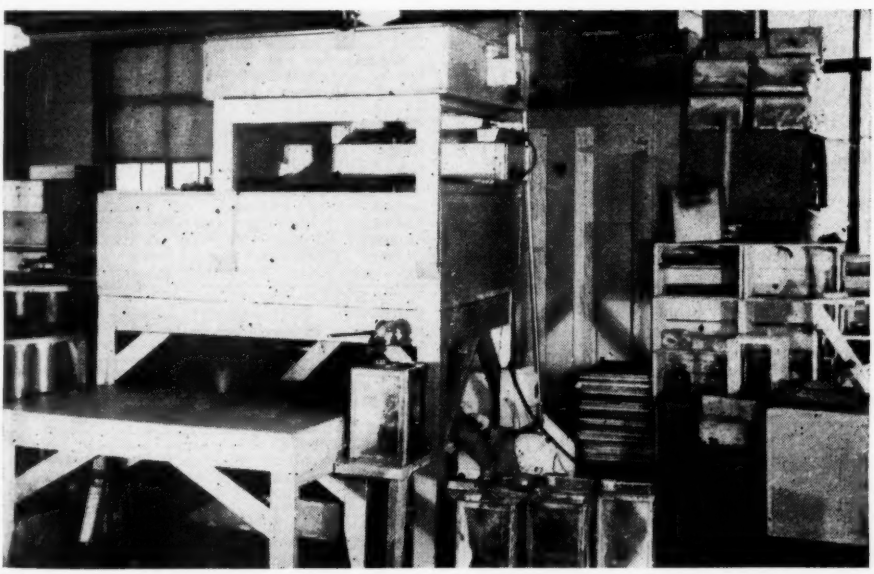
Monday A. M. Registration
Monday P. M.: 1:30 A Word of Welcome, announcements, general introduction
Tuesday A. M.: 8:30 Making a Start in Beekeeping. — W. W. Clarke
9:15 Care and Introduction of Package Bees. — George Rea
10:00 Spring Management. — E. J. Anderson
11:00 Colony Activities and Characteristics. — W. W. Clarke
11:30 Question Period
Tuesday P. M.: 1:30 Work in the apiary
Tuesday evening: 7:30 Honey Producing Areas of Pennsylvania and the U.S.A. — E. J. Anderson; Slides on honey plants of Pennsylvania. — W. W. Clarke; Story of the Bees — Sound Movies.
Wednesday A. M.: 8:30 Colony Morale and Swarm Control. — E. J. Anderson
9:30 Management for Comb Honey Production. — George Rea
10:30 Requeening. — W. W. Clarke
11:30 Fall Management. — E. J. Anderson
Wednesday P. M.: 1:30 Demonstrations on
1. Shaking package bees into cages
2. Introduction of package bees into hives
3. Transferring bees from a box to a modern hive

Wednesday Evening: 7:30 Movies: Realm of the Honeybee. — W. W. Clarke
8:15 Composition and Properties of Honey. — E. J. Anderson
Thursday A. M.: 8:30 Management of Bees for Pollination. — W. W. Clarke
9:30 Queen Rearing Methods. — G. Rea
10:30 Management of Bees for Extracted Honey Production. — W. W. Clarke
11:30 Races of Bees. — E. J. Anderson
Thursday P. M.: 1:30 Making queen rearing equipment (by all students)
3:00 Grafting queens in the apiary
Thursday Evening: 7:30 Artificial Insemination of Queens
8:30 Bee disease under the microscope
Friday A M.: 8:30 Marketing Honey. — E. J. Anderson
9:30 Diseases of the Honeybee. — W. W. Clarke
10:30 Enemies of the Honeybee. — Geo. Rea
Friday P. M.: 1:30 Extracting, straining and bottling honey
Friday Evening: 7:30 Banquet (Toast Master — A. R. Dean, Pittsburgh)
Dance of the Honeybee — Movies
(See photo below.)

* * * * *

The summer meeting of the **Ohio**

(Continued on page 508)



A side view of part of the equipment used for extracting honey during the Short Beekeeping Course at State College, Pennsylvania.

Buy and Sell

Only responsible advertisers and honest advertisements will be admitted to these columns. References required from new advertisers not known to us. Rate: 15c per counted word, each insertion. Each initial, each word in names and addresses, the shortest word such as "a" and the longest word possible for the advertiser to use, as well as any number (regardless of how many figures in it), count as one word. Copy should be in by the 10th of the month preceding publication.

HONEY FOR SALE

WE BUY AND SELL all varieties of honey. Any quantity. Write us for best prices obtainable. The Hubbard Apiaries, Onsted, Michigan.

ANY GRADE—Any amount. Alexander Co., 819 Reynolds, Toledo, Ohio.

IOWA Honey, one can or truck loads. Russell D. Smalley, Beaver, Iowa.

ORANGE, Palmetto, and Mangrove honey in new sixties. Peter W. Sowinski, Fort Pierce, Florida.

CLOVER extracted honey in sixties. Abram Brubaker, Lancaster, Pa., Rt. 1.

Michigan's finest raspberry, basswood, clover comb honey, in 4 x 5 window cartoned sections. Fancy, $6.00; No. 1. $5.00; No. 2, $4.00; case. E. Z. Quick Way B Farms, Walloon Lake, Michigan.

TUPELO HONEY — Ten-pound pails, $2.10 express charges collect. Marks Honey Co., Apalachicola, Florida.

AMBER HONEY—New sixties. Priced right. Free sample. Crenshaw County Apiaries, Rutledge, Ala.

MICHIGAN'S FINEST WHITE CLOVER HONEY. New sixties. Fully ripened. You will be pleased. Sample, 20 cents. John McColl, TECUMSEH, MICHIGAN.

WHITE bottling honey. Sage or orange. 17 cents. Tontz Honey Farm, Elsinore, Calif.

FOR SALE—White bottling grade honey by the truckload. Walter Roose, Sac City, Iowa.

CLOVER COMB HONEY—ready to ship at once. Write for prices. C. W. Schrader, Waterville, N. Y.

Fancy tupelo and gallberry chunk comb. 2½ and 5 pound sizes. A. V. Dowling, Valdosta, Georgia.

Honey, white clover, 17c per lb. in single cans, 16c in lots of 5 cans or more. Lose Brothers, 206 E. Jefferson, Louisville, Ky.

HONEY AND WAX WANTED

BEEKEEPERS TAKE NOTICE—We can not guarantee honey buyers' financial responsibiltiy, and advise all beekeepers to sell for cash only or on COD terms except where the buyer has thoroughly established his credit with the seller.

CASH FOR YOUR HONEY—Light extracted or comb. Regular trade send sample. 60-pound cans furnished if desired. W. R. Moomaw, Stone Creek, Ohio.

CASH FOR BEESWAX. Write as to quantity and we will quote price. Muench-Kreuzer Candle Co., Inc., Syracuse, N. Y.

HONEY WANTED—All grades and varieties. Highest cash prices paid. Mail samples. State quantity. HAMILTON & Company, 1360 Produce St., Los Angeles 21, California.

HONEY WANTED, any amount. If you want more for your honey, sell it to Cloverdale Honey Co., Fredonia, N. Y.

ALL GRADES HONEY AND WAX WANTED—Mail samples, advise quantity and cash prices delivered to us. HONEY SALES COMPANY, 1808 NO. WASHINGTON AVE., MINNEAPOLIS 11, MINN.

BEFORE YOU SELL your clover honey contact us. Send samples and tell us how much you have. The Delaware White Clover Apiaries, 139 West William St., Delaware, Ohio.

WRITE FOR shipping tags and quotations on rendered beeswax. We buy from one pound up and if you have over 25 pounds let us work it into foundation for you at a 25 percent saving. Walter T. Kelley Co., Paducah, Kentucky.

CASH for your comb honey and all types extracted. Send sample and best price. Buckeye Honey Co., 3930 No. High St., Columbus 14, Ohio.

WANTED — White extracted or comb honey. Send sample. Millersport Honey Co., Millersport, Ohio.

WANTED three carloads of buckwheat honey, two carloads of Florida orange blossom honey in barrels or cans, two carloads of southwestern alfalfa or cotton honey. Cash and top prices. Alexander Company, 819 Reynolds Road, Toledo, O.

WANTED—Light amber clover, amber, goldenrod, buckwheat. Advise what you have for immediate delivery. Roscoe F. Wixson, Dundee, N. Y.

CUT COMB CHUNK, clover preferred, truck lots or less. Cash on delivery. Lose Brothers Inc., 204-206 E. Jefferson, Louisville, Ky.

WANTED TO BUY—comb honey, No. 1 white only. J. P. Kallas, 5737 No. Milwaukee, River Parkway, Milwaukee 9, Wis.

FOR SALE

WRITE FOR CATALOG — Quality Bee Supplies at factory prices. Prompt shipment. Satisfaction guaranteed. The Hubbard Apiaries, Manufacturers of Beekeepers' Supplies and Comb Foundation. Onsted, Mich.

The only comb foundation plant in the east. We sell foundation, work your wax, render combs and cappings. Robinson's Wax Works, R. D. 3, Auburn, N. Y.

BEE SUPPLIES. Catalog free. Hodgson Bee Supplies, Ltd., 575 13th Ave., New Westminster, B. C., Canada.

BEE SUPPLIES—Tin packages; 10 sizes glass jars; paper shipping supplies; window cartons and other items. Roscoe F. Wixson, Dundee, N. Y.

FOR SALE—100 colonies, and all equipment. Crop still on. Honey packing equipment, including filter press. Mrs. C. H. Denny, 483 Moody St., Akron, Ohio.

THE BIGGEST BEE SUPPLY Catalog published (64 pages) free for the asking. Listing many items not found in other Catalogs. No agents—buy direct and save 20%. WALTER T. KELLEY CO., PADUCAH, KENTUCKY.

GET THEM while you can. New or used cans and Root Supplies for cash or honey of any kind. L. E. Hicks, 3930 N. High St., Columbus 14, Ohio.

FOR CHRYSLER ALL-STEEL electric welded queen excluders in the U. S. A., write to: Prairie View Honey Co., 12303 12th Street, Detroit 6, Michigan. Ask for Circular E 2.

FOR SALE—Used bee equipment in excellent condition, at half price. Write or call Mrs. D. C. Disney, 4605 Bruce Ave., Minneapolis, Minn.

FOR SALE — HAZEL-ATLAS modern honey jars, popular sizes, also one pound chunk comb jar. Priced right. Hiltner's Apiaries, North Creek, Ohio.

CHINCHILLAS — Not a rabbit. Registered N.C.B.A. stock. All animals guaranteed. We do our own financing and will trade for anything of value. Pine Hill Chinchilla Ranch, Box 220, Barre, Vt.

FOR SALE — New heart cypress 10-frame bottom boards. K. D., 10 or more, $1.00 each; 50 or more, 90 cents each; 100 or more, 8 cents each. 1 nailed up sample, post paid, $1.25. Fred L. Poole, Elizabethtown, Rt. 2, Box 67, No. Car.

BEES for sale. New and used 10-frame supplies. 200 good two-colony winter cases, with packing material, cheap. Ray Wilcox, Odessa, N. Y.

150 colonies including all honey if bought before extracted. Address Box 78, Cambridge, Idaho.

FOR SALE—600 10-frame factorymade extracting supers and brood chambers with drawn comb. Hive stands, bottom boards, covers. No disease. Frank Kearns, Austin, Minn.

FOR SALE—100 colonies bees and equipment near Ovid, Michigan. Sell all or part. Burton Davis, G-5417 N. Saginaw St., Flint, Michigan.

FOR SALE—Entire 1500 colony outfit in Montana. Will sell all or part of them—with or without bees—with or without honeyhouse—with or without home. Here is an opportunity to get into business—you name your own price!!. Box 852, Gleanings in Bee Culture, Medina, Ohio.

FOR SALE—Complete set of Gleanings, 1875-1950. Lacks only six volumes. Francis Higgins, Gallaudet College, Washington, D. C.

HONEY LABELS

Improved designs, embodying color, balance, simplicity, and distinction. Please send for free samples & prices.

C. W. AEPPLER COMPANY

Oconomowoc, Wisconsin

Michigan Headquarters for

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Gleanings in Bee Culture
Medina, Ohio

HONEY WANTED

Carloads and less than carloads. Mail sample and best prices in all grades.

C. W. AEPPLER COMPANY

Oconomowoc, Wisconsin

CAUCASIANS
CARNIOLANS

Hardy, prolific, rapid build-up, best of workers. Caucasians have the longest tongue of any race. Both races build beautiful white combs. BOTH ARE THE GENTLEST OF ALL RACES OF BEES. Gentleness is safest in towns, near neighbors, or near streets or highways. Gentleness saves time, sweat, patience, and work. Discount on quantity orders. Ask. Begin preparing for 1953 season this month. August is a good month to requeen. A few Caucasian Breeding Queens for Sale.

Prices, Both Races:

Untested Queens	$1.00 each
Tested Queens	1.75 each

By Air Mail

Albert G. Hann
Glen Gardner, New Jersey

YORK'S
Quality Bred Young Italian Queens

Quantity	Price
1-24	$1.00 each
25-99	.85 each
100-up	.75 each

The Strain Preferred by Leading Honey Producers

York Bee Co.
(The Universal Apiaries)
Jesup, Georgia, U.S.A.

STARLINE ITALIAN QUEENS

	1-25	25-50	50-up
Italians	$ .75	$ .70	65c
Starline	1.30	1.20	

Guaranteed Satisfaction.
Postpaid, Clipped

SUNKIST BEE CO., Convent, La.

Announcing a New Address . .

ROY WESTLEY

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Root Quality Beekeepers Supplies

3915 W. Grand Ave.
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Dickens 2-8855

Evenings and Weekends.
Days by Appointment.

(12 Years For Root Distributor, A. G. Gill)

. . . To Serve You Better

FOR SALE—50-frame Woodman extractor, $180.00; 30-frame Radial extractor, $135.00; 4-frame automatic extractor, $59.00; Brand capping melter, $47.50; honey tank, $30.00; uncapping tank, $20.00; honey pump, $30.00; 2 H. P. boiler and fittings, $100.00; stainless steel clarifying and skimming tank, $25.00. The Hubbard Apiaries, Mfgs. Beekeepers' Supplies and Comb Foundation, Onsted, Michigan.

BEES AND QUEENS FOR SALE

We use all possible care in accepting advertisements but we cannot be held responsible in case disease occurs among bees sold, or if dissatisfaction occurs. We suggest that prospective buyers ask for certificate of inspection as a matter of precaution.

NORTHLAND ITALIAN QUEENS—For production. $1.00 each; 10 up, 90c. Shirl Baker, Rodney, Michigan.

CAUCASIAN QUEENS, 75 cents each, any number. Lewis & Tillery Bee Co., Greenville, Ala.

YANCEY HUSTLER QUEENS — Three-band Italians; bred for business, $1.00 each; $10.00 per dozen. All guaranteed. Caney Valley Apiaries, 2500 Nicholas, Bay City, Texas.

THREE BANDED ITALIAN bees and queens. Good workers and gentle. 2-lb. with queen, $3.00; 3-lb. with queen, $4.00. Select untested queens, 1 to 25, $1.00; 25 to 100, 90c; 100 up, 80c. Write for prices on larger orders. Satisfaction guaranteed. Alamance Bee Company, Geo. E. Curtis, Mgr., Phone 4703, Graham, N. C.

GOLDEN ITALIAN BEES AND QUEENS. Very yellow and gentle. 2-lb. with queen $3.00; 3-lb. with queen, $4.00; Select untested queens, 1 to 25, $1.00; 25 to 100, 90c 100 up, 80c each. Carolina Bee Farm, W O. Curtis, Phone 7731, Graham, N. C.

CAUCASIAN BEES AND QUEENS. Extra good workers and very gentle, 2-lb with queen, $3.00; 3-lb. with queen, $4.00 Untested queens, 1 to 25, $1.00, 25-100 90c, 100 up, 80c. Black River Apiaries Elliott Curtis, Mgr., Currie, N. C.

SHORT'S QUEENS ARE GOOD QUEENS Try them and you will find their colonies tops in production, gentleness, and freedom from diseases. Three-banded Italians only. Used by leading honey producers for more than 30 years. Requeen now for maximum production next year. $1.00 each; 10, $9.00; 25, $20.00. Prompt shipment. Postpaid. H. C. Short, Fitzpatrick Ala.

YELLOW Italians, real honey producers, service guaranteed. 2-lbs. with queen $4.50; queens, 80c; 50 up, 75c, air mail O. E. Brown, Route 1, Asheboro, N. C.

CAUCASIAN QUEENS, young laying Personally raised. $1.00 each. Fred Brock McDonald, Tenn.

---

750 colonies of bees in two-story ten-frame hives. With all equipment for extracted honey production. Must sell because of poor health. Geo. Morrison Cloverdale, Ohio.

HELP WANTED

Applications wanted for year around work in commercial beekeeping. Give experience, age, and salary details in first letter. York Bee Company, Jesup, Ga.

WANTED

WANTED—Filter press. T. E. Turner, Box 242, Saginaw, Texas.

SEEDS

HONEY PLANTS our specialty. Catalog on request. Pellett Gardens, Atlantic, Iowa.

MAGAZINES

WESTERN CANADA BEEKEEPER—Official organ of the Manitoba Beekeepers' Association. One year, $1.50; two years, $2.25; three years, $3.00. In combination with Gleanings in Bee Culture, $2.75. 211 Affleck Bldg., Winnipeg, Canada.

THE BEE WORLD, international and scientific journal on bees and beekeeping, with apiculture abstracts. Monthly, including membership in the Bee Research Association, $3.00 per annum, including apicultural abstracts. Dr. Eva Crane, Director, 55 Newland Park, Hull, Yorks, Eng.

Know interesting facts concerning the bees of India through the INDIAN BEE JOURNAL, published in English by the Bhupen Apiaries (Himalayas), Ramgarrh, Dist. Naini Tal, U. P., India, or available through them. Subs. Rs7/ or 10 shillings or 2.25 dollars per annum. Single copy, Rs ¼s. 1/9 or 40 cents (International Money Order). Payment in mint postage stamps of your country accepted.

Read the South African Bee Journal. Published every two months. Subscription 7/6 per year to the Treasurer, P. O. Box 3306, Cape Town, South Africa.

INTERESTED in Angora Goats? Read the Sheep and Goat Raiser, Hotel Cactus, San Angelo, Texas, the only ranch magazine published serving the Angora Goat industry. Subscription $1.00. Sample copy, fifteen cents.

If you are taking time to read, why not read the best? Condensed to save you time. Illustrated to give you pleasure.

Modern Beekeeping
The Picture Bee Magazine
Box 210 Paducah, Kentucky

Requeen with
B A R G E R ' S
NORTHERN ITALIAN QUEENS
Large deep thorax, long-legged beauties
Untested 1-24, $1.00; 24-up, 75 cents
Select tested (in large cages) $2.00
Clipped — Airmailed — Painted
BARGER APIARIES
CAREY, OHIO

LIVE AND LEARN

(Continued from page 474)

extent that a little honey wouldn't sweeten the situation, but under the wrong circumstances it could mean trouble. I can't advise you what to do about it, excepting to make sure that there is a supply available nearby. This may not mean anything, but it does seem to me that they like to fly a bit before gathering it. Every one of the waterers that I have put out for them deliberately has been within ten feet of the hives, and has been ignored. In some cases, the same apparatus a hundred or more feet from the hives has been visited eagerly. Draw your own conclusions.

TOO LATE TO CLASSIFY

White clover honey in new sixties. Finest quality. Single can, 16 cents, two cans, 15 cents, 5 can lots, 14½ cents a pound. F. O. B. Write for prices on large quantities. Paul Englehardt, Antwerp, N.Y.

FOR SALE—Equipment for 500 colonies of bees, radial extractor, tanks, bee house, and locations. Must sell, owing to age. Write H. B. Keller, Underwood, Iowa.

FOR SALE: Bees (Italian) in 2-story hives, 90 or less, also supers, etc. May be left at one of their three locations if desired. Latherows Golden Honey Apiary, RR 3, 220 Scotts Army Trail, Belvidere, Ill.

Healthy Italian Bees Queens
Write for 1952 Prices
Georgia Bee & Honey Apiaries
P. O. Box 312 Hortense, Ga.

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Package Bees
and
Queens
Write for Prices.
JACKSON APIARIES
Box 58, Funston, Ga. U.S.A.

Dadant's Starline Hybrids — **John Davis Italians**
Produced in Little's Apiaries

	Queens	Packages 2-lb.	3-lb.	4-lb.	Queens with Davis	Packages
1-24	$1.45	$3.75	$4.50	$5.45	$1.20	queens deduct
25-99	1.35	3.50	4.40	5.25	1.10	25c from
100-up	1.25	3.25	4.25	5.15	1.00	Starline prices

Extra pounds, $1.00 per lb. Shipping starts about April 10.
Reg. U.S. Pat. Off.
LITTLE'S APIARIES
Shelbyville, Tenn. P. O. Box 122

REQUEEN NOW

As Soon As You Get That Honey Off — Requeen

It's Good Insurance For Wintering And Next Year's Crop

WE HAVE THE QUEENS

ITALIANS CAUCASIANS
ITALIAN HYBRIDS

Prices

1 - 24	$ .75 each
25 - 99	.70 each
100-499	.65 each
Tested Queens	1.50 each

Postpaid, Airmailed and/or Clipped—No Extra Cost

The Stover Apiaries

Mayhew, Miss.

HOWARD WEAVER'S

Caucasian Queens at the following prices:

1 - 24	$1.10
25 - 49	1.00
50 - up	.90

No package bees.

Howard Weaver
Navasota, Texas

1876 1952

Our 1952 crop of Michigan clover honey should be ready for the market in July. Dealer: if you want clover honey of the best quality, get on our mailing list, and we will keep you advised on crop conditions, and prices for the coming season. Address E. D. Townsend & Sons, Northstar, Michigan. The BEST known name in HONEY PRODUCTION.

We Have Nothing to Sell
But a Good Bee Journal
BEEKEEPERS MAGAZINE
Lansing 17, Michigan
Fourteenth Year of Publication
One Year, $2.00
Three Years, $5.00
Sample copy mailed upon request

ON THE DISSEMINATION OF AFB SPORES

(Continued from page 462)

used for growing bacteria but when grown in honey they could not be killed in a one percent solution of sulfa. It would not be surprising if these vegetative cells didn't keep on vegetating after they had been pumped into the cell with this thin sugary nectar for here is their natural food in a 90-degree temperature, though, of course, they would have to stop vegetating when the bees had evaporated the honey to a density greater than their own. But this would just act as a deep freeze which would last until that honey was consumed, then the cycle would start all over again.

This idea has come to me through my ten years with sulfa. In my little apiary are many of those old combs that were so badly infected in the beginning that they are still in daily use and showing no sign of the disease returning. I can't conceive of the bees cleaning them all out. But if spores are there they are pasted down under several old cocoons. It is no proof to say that sulfa is a failure when one feeds until the brood nest is cleared then stops feeding and leaves old infected honey any place in the hive. In that case it's the man that fails. Sulfa is just a tool and it will do permanent work when intelligently used. But in general practice it is not best to try cleaning up such diseased combs. There is too much danger of exposure to robbers and drifters of nearby colonies. Better melt them down and be done with them.

Peace is for the strong . . .
Buy U. S. Defense Bonds regularly!

Selected Italian Queens 75c ea.
All queens shipped Air Mail
and guaranteed to please.
Carniolans ..... $1.00 ea.
Caucasian queens . .90 ea.

Walter D. Leverette Apiaries

Box 364 Fort Pierce, Florida

AMERICAN HONEY INSTITUTE NOTES

(Continued from page 475)

so a honey customer will know where to come.

Advertise the boxes in your local paper, so homemakers will know where they can buy them. You can do your own little mail-order business, for each recipe box is individually wrapped in its own sturdy mailing carton. A good trick would be to give a small eight-ounce jar of your honey with each recipe box you sell. After all, it's **your** honey you are promoting with this file box.

How did this whole idea for a honey recipe box come about, anyway? Let us tell you the story. . . .

Shortly before the war, Mrs. Grace, the Director of the Institute, who is short of stature but long in ability, thought up the idea of an all-honey recipe file box. War shortages halted making the dream into reality, however.

Soon after the armistice Mrs. Grace took up her pet scheme again. It was a complicated job of sifting recipes to arrive at the best, of testing different styles of boxes to get the most satisfactory, of having pictures taken and cuts made to go with the recipes, of deciding on the most effective color schemes, the best art work, of proof reading, and finally, of assembling all the cards into each box.

And of course the most crucial problem was to gather the financial means to cover the printing and production costs of the box.

Cost of the box is nominal we are sure you will agree. An individual box sells for $1.00; a dozen sell for $9.00, postpaid. This includes only the cost of printing. It does not include the cost involved in the preparation of the box.

We ask you to send $1.00 for one box as a tester; we know you'll be so sold on them yourself that you will soon order them by the dozen. Here is a convenient order blank:

Please send me ..... single copies or ..... dozen copies of your new honey recipe file box. I understand that each single copy is $1.00 and each dozen is $9.00.

Name .....

Address .....

Address order blank to:
American Honey Institute
Commercial State Bank Building
Madison 3, Wisconsin

LADY LIKE CAUCASIAN

bees in our testing apiaries in a North Central State more than doubled that state's average per colony honey crop in 1951. Our breeding queens for this season were selected for disease resistance, honey production, and gentleness. Their daughters will produce for you if properly handled.

Select untested Queens

1-9	$1.10 each
10-25	1.00 each
25-50	.90 each
50 or more	.75 each

Queens clipped and marked free on request. Please print name and address.

CAUCASIAN APIARIES
CASTLEBERRY, ALA.

Package Bees for 1952

Truck loads a specialty
Nuclei made to order
Italian Queens

Eugene Walker

Live Oak, Calif.

ITALIANS
Bees and Queens

2-lb. pkg. each	$2.50
3-lb. pkg. each	3.50
4-lb. pkg. each	4.20

Nice large queens
1-99 ..... 55c 100-up 50c
All queens are honeys for producing honey.
MITCHELL'S APIARIES
Box 391 Bunkie, La.

ITALIAN QUEENS
Pure mating guaranteed
$1.00 each
W. E. PLANT
Hattiesburg, Mississippi

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The Leading Bee Journal of the Southern Hemisphere is the
"AUSTRALASIAN BEEKEEPER"
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New South Wales, Australia

JUST NEWS

(Continued from page 501)

State Beekeepers' Association will be held August 5 and 6 at Jefferson, Ohio, in the Grange Hall. A cordial invitation is extended to all beekeepers including those out of state. On August 5th the principal speakers will be George Rehman, No. Baltimore, Ohio; S. E. Bailey and John Barringer, Columbus, Ohio; Edgar Williams, Pierpont, Ohio; H. R. Swisher, Springfield, Ohio; E. W. Long, St. Paris, Ohio. At the evening banquet, Jere Frazer, of Chillicothe will be toastmaster. Paul Cutts, of Chipley, Fla., will be the guest speaker, and H. H. Root of Medina, will show a bee film. On August 6 the speakers will be H. R. Swisher, Chas. A. Reese, M. J. Deyell, and Ted Gran, Jr.

* * * * *

The **Lake Region Beekeepers' Association** held its summer meeting at V. A. Sundberg and Sons Apiary, in Richville, Minn. Mr. C. D. Floyd, State Apiarist, gave a good report on A.F.B. problems in some localities and also explained the government loan program on honey. The association is buying packing paper collectively. It can be picked up at the fall meeting in Perham, Minn. on Sept. 9th. The next meeting will be in the City Hall in Perham, Minn., on Sept. 9th. All beekeepers from the adjoining counties are urged to attend. The meeting was concluded with two films furnished by the Ford Motor Co. At the next meeting we will see slides taken in Norway and shown by an exchange student from Norway here learning beekeeping in this country.—L. W. Sundberg, Sec.

* * * * *

The **Pennsylvania State Beekeepers' Association** will hold its 49th annual beekeepers' field day and picnic on August 23, at State College, Penna. Program at 9:30 to 12:00; Registration at 9:30 to 10:00; Meeting called to order by the President, Paul S. Ziegler, Bethel, Pa.; at 10:00; Group singing, led by Mrs. Orpha Ziegler, Bethel, Pa.; Welcome by Dr. Lyman E. Jackson, Dean, School of Agriculture, Penn State College; Inspection program during this summer by H. B. Kirk, Senior Entomologist, Harrisburg; Honey House and Research by Prof. E. J. Anderson, Research in Apiculture, State College; Why Use Honey by Harry W. Beaver, Troy, Pa.; The Future of Beekeeping by Prof. Geo. H. Rea, Reynoldsville, Pa.; Preparing for Winter by W. W. Clarke, Jr., Extension Apiarist, State College; Reading by Mrs. Donald M. Warner, Red Lion, Pa.; Greetings by R. B. Willson, New York City.

Basket Lunch, 12:00. Lemonade and coffee will be served by the Centre County Beekeepers' Association. Tables will be provided in the park for your basket lunch. A table will be reserved for this purpose. The Secretary of the State Association will meet the secretaries of the County Associations at 1:00 o'clock.—H. M. Snavely, Sec.

* * * * *

BEE LINES TO THE EDITOR

(Continued from page 452)

"I can well imagine many golfing beekeepers' curiosity over the bewildered golfer carrying a driver on the green. Probably, in time you will get the true explanation directly from the holder of the club. It may be that the hole is just a good drive and he had not yet recovered from his bewilderedness."—R. P. C.

* * * * *

"I have to take a crack at that picture of the golfer on the cover. I dub along at this game and the club that the good-looking player carries in his right hand is not the club that he ought to be using anywhere within 150 yards of the spot where he is standing! He is holding what is probably a driver or a brassie and he should have a putter"!—H. W. J.

* * * * *

"The cover picture on the July issue of Gleanings records an interesting situation for both beekeepers and golfers.

"However, I must conclude that the good-looking gentleman who scratches his head while surveying the situation is neither (1) a beekeeper, nor (2) a golfer, because:—(1) a beekeeper would not hesitate (for long) to remove the flag gently from the cup and proceed with his game, and (2) a golfer would be using a putter on the green—certainly not a driver.

"This picture might make a good poster for a 'Be (Bee) Kind to Golfers' campaign — but meanwhile (while the campaign is being organized) I am wondering how said G. L. Gentleman solved the problem."—G. M. C.

150 YEARS WITH THE BEES

(Continued from page 461)

water and sugar, but a two-to-one mixture that included 50 pounds of sugar. Others were fed varying amounts depending on their condition and backlog of honey. This procedure keeps the Mettler family from indulging in any sweets. "The Austerity Program", this operation was known as in the family circle, but it did save the bees.

To get these large amounts of sugar into the colonies, Mr. Mettler uses a system that is somewhat different from the usual method. First, remove the colony's cover and over its escape board place one or two deep tin bread pans. In these he lays a folded strip of gauze or coarse cheesecloth, leaving part of it trailing out of the pan and onto the escape board close to the escape hole. He then fills the pan with a hot solution of sugar and water. These pans with their floating cheesecloths and their saturated wicks are ideal targets for bees whether they are in need of extra stores or not. This arrangement feeds rapidly due to the large quantities of sweetness exposed to them and there is no danger in drowning.

The only danger entailed is robbing and Mr. Mettler makes sure that a tight metal cover fits over this feeding super, and that the body fits snugly to the escape board.

"It has taken a lot of sugar, but I'm ready for next year's crop", says Mettler.

And he is. He has the best of stock that will produce in his area. The colonies are headed by young and vigorous queens which will minimize his swarming problem. They have ample winter stores for an adequate spring build-up and best of all, they have an understanding and capable owner-beekeeper.

All in all, it looks like bees will remain at the Mettler homestead for another 150 years. Even now Mettler's son is showing signs of becoming bee conscious. Who knows? Maybe he will enjoy bees and get as much value from them as his father and the generations behind him.

Canada's
National Monthly Magazine
for Beekeepers

Canadian Bee Journal

Streetsville, Ontario, Canada

U. S. Subscription Price,
only $1.75 per year.

JENSEN Says:

"Don't tolerate any old queens for what they 'have been'; they never 'snap back' for long once they show signs of exhaustion. REQUEENING NOW will pick up those laggard colonies and help make this fall crop of honey, and then the crop of young bees to form the winter cluster essential to good wintering.

"And these queens will be good for all next season, that is, good ones like ours. We are continuing our queen rearing and producing queens of highest quality for our customers and ourselves."

Our Old Proven Line
"Magnolia State" Italians

1-24	95c
25-99	90c
100-499	85c
1000-up	80c

Dadant's "Starline"
Improved D.R. Hybrids

1-24	$1.20
25-99	1.15
100-499	1.10
1000-up	1.05

Clipped and Marked Free
Select Tested "Magnolia State" $1.50 each.

JENSEN'S APIARIES
Macon, Miss. U.S.A.

The Business QUALITY BUILT

KOEHNEN'S
Package Bees and Queens
For Quality and Service
KOEHNEN'S APIARIES
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THRIFTY QUEENS
Three-banded Italians only

Lots of 100	$55.00
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REMEMBER — Thrifty Bees are Guaranteed to Please

W. J. Forehand & Sons
Fort Deposit, Ala.
Breeders Since 1892

QUEENS

By return mail	60c
2-lb. package with queen	$2.75
3-lb. package with queen	3.50
Tested queens	1.00

BRIGHT 3-BAND ITALIANS
Guaranteed in every respect.
NORMAN BROS. APIARIES
Ramer, Ala.

DADANT'S STARLINE **RICH'S LEATHER ITALIANS**

For pleasure or profit we have the two most outstanding strains available.

Only young laying queens that have produced a good compact brood pattern are caged for shipment.

These strains are under constant test in our honey production yards along with other leading breeds.

We guarantee that you will be more than pleased with their performance.

Live delivery guaranteed, clipped, and marked with a white dot for your convenience at no extra cost.

Why not requeen this summer and help prevent swarming next spring?

DADANT'S STARLINE		RICH'S LEATHER ITALIANS	
1-24	$1.30	1-24	90c
25-99	1.20	25-99	80c
100-up	1.10	100-up	75c

THE RICH HONEY FARMS **JEANERETTE, LA.**

"GULF BREEZE" ITALIAN QUEENS

The choice of many experiment stations, commercial, and small operators. The result of 43 years of beekeeping behind our stock. Why not have a specialist produce them for you instead of someone with little experience?

Prices: 1-24 ..... 80c 25-up ..... 75c each, postpaid

BESSONET BEE COMPANY **Donaldsonville, La.**

To Whom It May Concern:

Effective January 1, 1952, the partnership of ROSSMAN & LONG was dissolved with J. G. (Joe) ROSSMAN buying the interest of E. W. (Emerson) LONG of St. Paris, Ohio.

J. G. ROSSMAN will continue to manage the Package and Queen business in Georgia.

There will be NO change in PERSONNEL or POLICY in dealing with the public.

Both Emerson and Joe feel this arrangement is better, and they terminate their very pleasant relations as partners with best wishes each for the other.

Queens available all fall.
Regular or Kelley Island
3-way Hybrid
1-25, 85c 26 or more, 75c ea.

— Please —
No more packages this year.
"They Produce"

ROSSMAN APIARIES
Formerly ROSSMAN & LONG
Box 133 **Moultrie, Ga.**

Hollopeter's Queens

Reared in the North from Northern stock full of vim, vigor, and vitality. Highest quality and prompt service during the August and September buckwheat flow. Good time to requeen.

— Prices —

1 -9	$1.00 ea.
10 -24	.90 ea.
25 -49	.80 ea.
50 -99	.75 ea.
100-up	.70 ea.

WHITE PINE BEE FARMS
Rockton, Penna.

Peace is for the strong . . .
Buy U. S. Defense Bonds regularly!

Two High Producing Strains

Dadant Starline Hybrids
They have been called
"The bees of the Future"
They are of the Finest.

1 - 24	$1.20
25 - 99	1.15
100-499	1.10

Garon's 3-Banded Italians
Backed by over a quarter
century of experience -
Let us serve you at these
reduced Summer prices.

1 - 24	70c
25 - 99	65c
100-499	60c

Queens clipped and painted, and Air Mailed upon request

GARON BEE CO. **Donaldsonville, La.**

PACKAGE BEES **ITALIAN QUEENS**

	1-49	50-99	100-up
2 lb. with queen	$3.50	$3.25	$3.00
3 lb. with queen	4.50	4.25	4.00
4 lb. with queen	5.50	5.25	4.90
5 lb. with queen	6.50	6.25	5.80
Queens	1.15	1.10	1.00

Safe arrival and satisfaction guaranteed.
Queens sent airmail postpaid—clipped on request.

GEO. A. HUMMER & SONS
Prairie Point, Miss. Western Union, Macon, Miss.

ITALIAN QUEENS
70c each
Quality Does Not Cost — It Pays
The WILBANKS Apiaries Claxton, Georgia

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THREE-BANDED LEATHER-COLORED ITALIAN QUEENS

75c each, any number — Shipped Via Air Mail
Safe Arrival — Satisfaction Guaranteed

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GOOD QUEENS

Italian or Caucasian

Customer: If you want queens that will pay off in the future and produce bees that a man can handle with pleasure, send your requirements to me, for I have them. 60c ea.

Farris Homan
Shannon, Miss.

HIGH QUALITY ITALIAN QUEENS

By Air Mail ..... 75c each
10 or more ..... 70c each

For prices on Package Bees please refer to May issue of Journal.

CARLUS T. HARPER
New Brockton, Ala.

AND NOW AGAIN

We are accepting orders for shipment beginning on or about June 15, for our HARDY NORTHERN BRED leather colored Queens. $1.25 ea. Discount on large orders.
The Delaware White Clover Apiaries
139 W. William St., Delaware, Ohio

KELLEY — "The Bee Man"

QUEENS

The package season is now over and we have a surplus of fine young Kelley Island Improved Hybrid queens, fresh daily from your Louisiana bee farm.

Each by prepaid air mail from Paducah 75c

Lots of 25 and more, 65c each.

Walter T. Kelley Co., Box 210, Paducah, Ky.

BETTER-BRED QUEENS — THREE-BANDED ITALIANS

60c each Use them for replacing failing queens, also requeening for swarm control, etc. You can't buy any better queens at any price. **60c each**

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